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ABSTRACT

Described is the Modified Language Acquisition Program (MLAP) which used trainable mentally retarded trainers to teach basic language skills to severely and profoundly retarded students in a state hospital. Provided are a flow chart and procedural description to guide the use of the MLAP with attendant-supervised retarded trainers and a second flow chart and description for use when the attendant, aide, or teacher is using the MLAP to train students directly. The final section covers a part by part description of the MLAP for the following phases: attending, motor imitation, vocal imitation, basic receptive phase (understanding single words that label), receptive expansion phase (understanding combinations of words that label), basic expressive phase (using single words to label), and expressive expansion phase (using words to label, to ask, to tell whose, and to tell where). Appended are such items as a list of definitions of behavioral terms, a list of equipment needed in MLAP, the picture training cards for the retarded trainer, and signs for words in the MLAP. (DB)

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A MODIFIED LANGUAGE ACQUISITION PROGRAM* FOR USE BY ATTENDANTS AND ATTENDANT-SUPERVISED RETARDED TRAINER-STUDENT PAIRS

U S DEPARTMENT OF HEALTH.
EDUCATION & WELFARE
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For additional reference, see:
Kent, L. Language Acquisition Program for the Severely Retarded. Champaign, Ill.: Research Press, 1974.

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Section I: Uses of the Modified Language Acquisition Program

Flow Charts and Procedures for using the Modified Language Acquisition Program with:

- A. Attendant Supervised Retarded Trainer-Student Pairs
- B. Direct Training of a Student or Student(s) by an Attendant, Aide, Teacher, etc.

Acknowledgements

Grateful appreciation is extended to Diane Klein for her assistance to me in using the original Language Acquisition Program at Ft. Custer State Home and Training School and also for her continued support and most helpful suggestions in the modification of the LAP and in the implementation of the experimental training project at Howell State Hospital in the summer of 1972. Appreciation is also expressed to Dr. Louise Kent for her approval of continued interest in the MLAP and her sharing with me of the LAP revisions.

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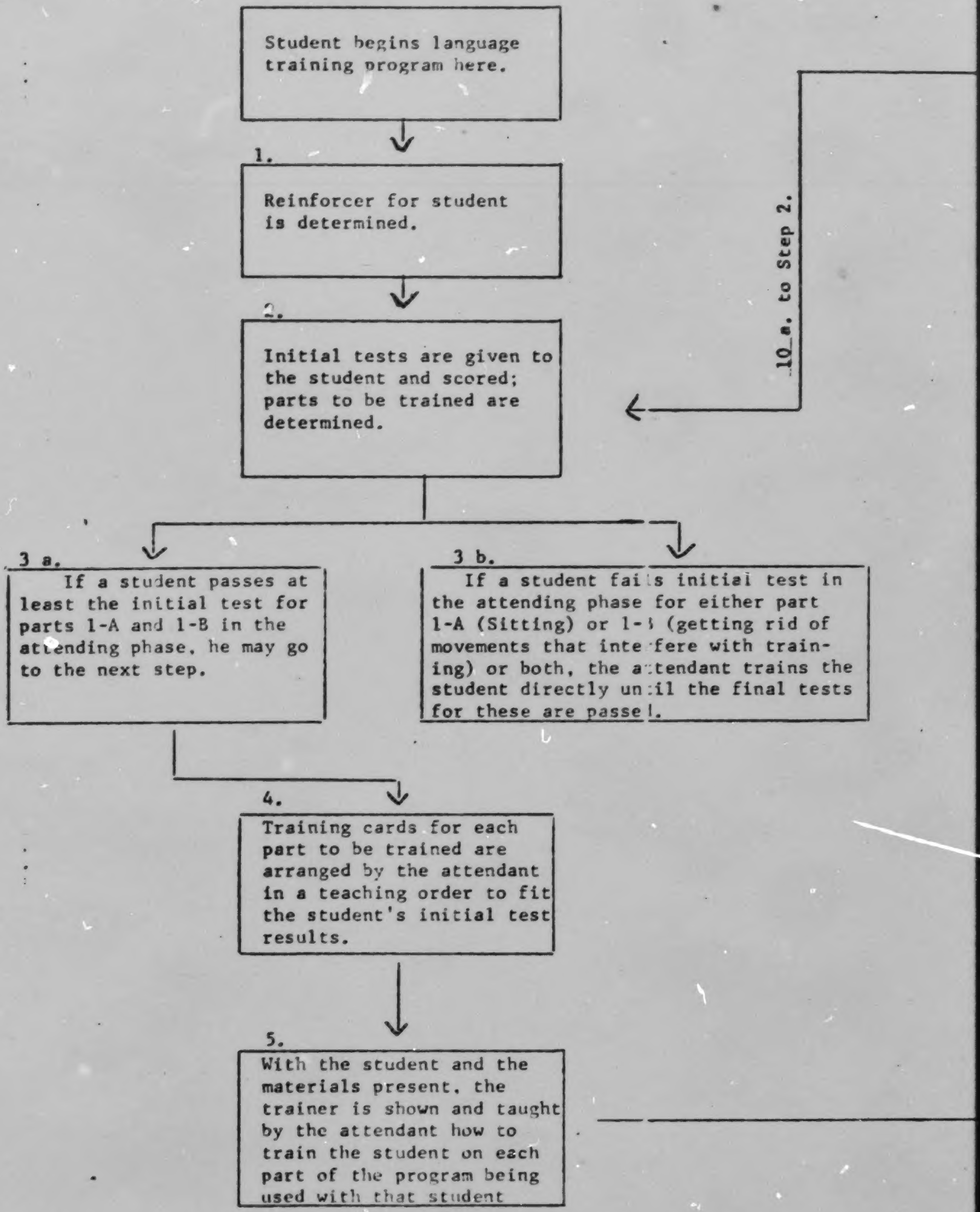
FLOW CHART OF THE MLAP FOR ATTENDANT SUPERVISED RETARDED TRAINER-STUDENT PAIRS



Student begins language training program here.

1. Reinforcer for student is determined.

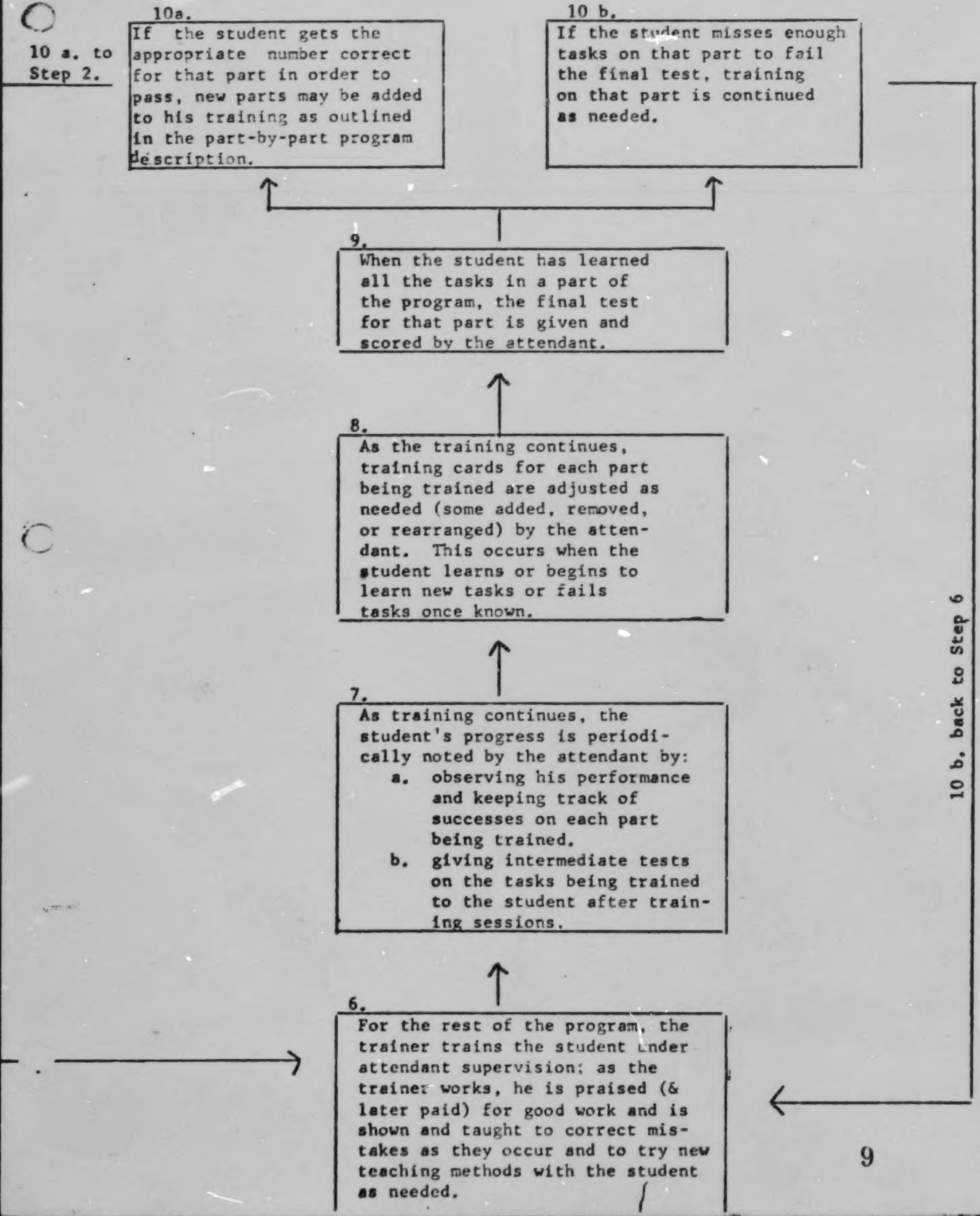
2. Initial tests are given to the student and scored; parts to be trained are determined.

3 a. If a student passes at least the initial test for parts 1-A and 1-B in the attending phase, he may go to the next step.

3 b. If a student fails initial test in the attending phase for either part 1-A (Sitting) or 1-B (getting rid of movements that interfere with training) or both, the attendant trains the student directly until the final tests for these are passed.

4. Training cards for each part to be trained are arranged by the attendant in a teaching order to fit the student's initial test results.

5. With the student and the materials present, the trainer is shown and taught by the attendant how to train the student on each part of the program being used with that student



10 a. to Step 2.

10a.
If the student gets the appropriate number correct for that part in order to pass, new parts may be added to his training as outlined in the part-by-part program description.

10 b.
If the student misses enough tasks on that part to fail the final test, training on that part is continued as needed.

9.
When the student has learned all the tasks in a part of the program, the final test for that part is given and scored by the attendant.

8.
As the training continues, training cards for each part being trained are adjusted as needed (some added, removed, or rearranged) by the attendant. This occurs when the student learns or begins to learn new tasks or fails tasks once known.

7.
As training continues, the student's progress is periodically noted by the attendant by:
   a. observing his performance and keeping track of successes on each part being trained.
   b. giving intermediate tests on the tasks being trained to the student after training sessions.

10 b. back to Step 6

6.
For the rest of the program, the trainer trains the student under attendant supervision; as the trainer works, he is praised (& later paid) for good work and is shown and taught to correct mistakes as they occur and to try new teaching methods with the student as needed.

The MLAP is heavily based on the 1970 revision of the Language Acquisition Program (LAP) initially developed at Ft. Custer State Home and Training School by Louise Kent, Diane Klein, Arthur Falk, and Hartmut Guenther. Most changes made in the LAP were for the purpose of adapting it to be used with retarded trainers (generally in trainable range) and severely and profoundly retarded students in an experimental situation. Specific changes occur in the over-all organization of the program, the description of initial, intermediate and final test procedure, and the addition of an object to the last four phases ("spoon").

The Modified Language Acquisition Program (MLAP) may be used in two ways:

1. Retarded trainers supervised by attendants familiar with MLAP techniques may provide one to one training with students.
2. Attendants, aides, teachers, etc., may also use the MLAP to directly train a single student or a group of students.

The first two sections of the manual will describe these two ways to implement the MLAP. First a flow chart and procedural description will be given to guide the use of the MLAP with attendant-supervised retarded trainers; next a second flow chart and description will follow to guide the attendant, aide, or teacher in using the MLAP to train students directly. The final section of the manual will cover a part-by-part description of the MLAP: phase title, part title, test description, passing score, and training suggestions for that part.

A.1 Determine reinforcers for the child or person being trained

Reinforcers can be anything liked by a person and are usually food, drinks, or activities with toys as well as praise and affection. These are given to the child after he performs correctly or partially correct on a task. By giving reinforcement at this time, the child is more apt to improve a partially correct response (performance on a task) or to make more correct responses in the future. Reinforcers for each child will generally one of four kinds:

1. enthusiastic praise from the trainer
2. smiles from the trainer
3. a pat or hug from the trainer
4. a material object or an activity that is especially liked by the child and is determined as outlined below

The child may not like the first, second, and third kinds of reinforcers at first, but he will learn to like them since each time a #4 reinforcer (i.e., material or activity) is given, praise, smiles and tactual affection will also be given. After a period of time, he will begin to associate the first three kinds of reinforcers with the material or activity reinforcer which he already likes.

To determine a material or activity reinforcer, the child is given samples of foods, drinks, and activities with toys or other objects and closely watched as he tries each. First, begin with a variety of solid and semi-solid foods in different containers on a tray. Give him a taste of each, one at a time, allowing him to see the variety on the tray. Then place the tray of foods in front of him and watch as he chooses and eats. Note which ones he takes most often or whether he refuses any. Then try the same procedure with a variety of drinks and activities with toys. When trying the toys, the child would be allowed to play with each for a few seconds and then given all the toys to choose from. Toys such as music boxes wound only slightly, string-pull talking toys, tops, surpise boxes, busy boxes, talking telephones, wind-up cars or any other action or noise toys that can be enjoyed when played with for only a few seconds are the best ones to try.

It is possible that the child likes something in each of the three categories; in this case, all the reinforcers can be used one at a time. The reinforcers could be changed day by day or sooner, to keep the child's interest high. Or, if the child is capable, a choice of these favorite things may be offered each time he is reinforced. For example, a tray is pushed in front of the child with two drinks, three kinds of food, and a favorite music box on it. Such a child, capable of choosing his own reinforcement, may be put on a token system to make the reinforcing procedure faster (see explanation below).

It is possible that the child likes too many items from each category and it is difficult to decide which ones to use. In this case, place all the favorite items in front of the child and make a new list of preferences trying to eliminate the less favorite ones.

Finally, the child may not be interested in any of the items offered in any of the categories. If this is the case, question the person that best knows the child to determine items that are liked by the child on the ward. These new items should be sampled by the child in the usual way and may include activities with objects other than toys (blowing bubbles, a vibrator placed in the hand, a squirt of mouthwash sprayed in the mouth, throwing a ball into a box, etc.). Be careful to choose activities that can be quickly and easily given without upsetting the training sessions.

Finally, the child may like the first three kinds of social reinforcers and not seem to like any of the material or activity reinforcers (number 4 type). In this situation, it is good to use only these three, given at the same time, to reinforce the child.

A token system, as mentioned previously, may be used in some cases.

This means that instead of reinforcing every correct response made by the child with food or toys and special reinforcement, the child is still given the social reinforcement and also given a token (checker, penny, washer, poker chip, etc.). These tokens are exchanged at the end of the training session for food, drink, toys to keep, or an activity. At first, the tokens will not be reinforcing - the child must learn to like the tokens and to know what they can be exchanged for. Therefore, 5 to 20 minutes, depending on the child, should be invested in token training; additional token training sessions can be used if a child makes some progress in the first session but does not yet seem stable in his understanding of token reinforcement as described below. First the trainer should determine an easy single response that the child can already make or can make with a small amount of prompting; these may include looking into the trainer's eyes, folding hands, or standing up and sitting down on command or in imitation of trainer, or other simple motor imitation tasks (ringing a bell, hitting the table, clapping, etc.). Next, after deciding upon one or a couple of responses, the trainer either waits for the response or commands it and then rewards the child with praise and hands him a token as soon as the response has been made. Then immediately the child is asked to return the token to the trainer's outstretched hand with gestures and prompts as needed in exchange for some small amount of food or drink that the child likes (also the short activities discussed above may be used for the child who does not like food). This procedure of exchanging one token (earned after the child makes the desired response) for a small amount of food is repeated for a minute or so until the trainer feels the child is beginning to understand the association between earning the token, giving the token back to the trainer and receiving some primary reinforcer in exchange. Next the trainer may gradually increase to about a 5 or 10 token accumulation before a trade-in is granted. As the child begins to associate tokens with a food or material reinforcer then a small container (metal 1-pound coffe can is ideal) may be introduced to hold the student's tokens; this speeds up the trade-in process and adds an auditory signal to the token reinforcement procedure as the token hits the can. It is important that the student hand the tokens to the trainer at trade-in time, although the trainer when reinforcing a response with a token should put the token directly into the token can or container.

This token training procedure does not set a definite value per token but rather allows the trainer to give tokens as often as desired and exchange any amount for a small portion of food (one raisin, a sip of juice, etc.) or an object (a marble, a picture, etc.) or an easily given activity (a few seconds of a wind-up music box, a single pull on the pull-the-string talking toys, etc.) For more advanced students it would be possible to assign values to the tokens so that the exchange for reinforcers is made according to the number of tokens earned (such as three tokens for a cookie, etc.)

Tokens have many advantages over using food and other material reinforcers during training - they are faster and can be given often, they can be exchanged for a wide variety of reinforcers at different times during training or only at the end of the training session, and the student will not become tired or full of one reinforcer given repeatedly throughout the training session. Finally, tokens may be exchanged for longer activities liked by the student: ride in a wagon, walk outside, trip to visit someone for a few minutes, etc.

A.2 Initial Testing

Initial tests are given to the student for each part in all seven phases of the program. Tasks for the initial test of each part are listed in the part-by-part description. Generally, each task is given two times (check part-by-part description for specific directions) and all tasks for a part are given in a random order which the tester writes out on the test form before beginning to test. The student's performance on each task is recorded after the task is given. If the student gets all the tasks presented in a part correct, training on that part need not be given. If the student misses enough tasks not to pass the test (see part-by-part description) for a part, then training must be given by the trainer on those tasks in that part of the program until the student is able to pass the final test for that part. The only exception to this general procedure of using the retarded trainer, under direction and supervision, to train the student on parts of the program failed in the initial tests occurs in the first two parts of the attending phase: sitting (1-A) and getting rid of movements that interfere with training (1-B). These parts are more easily taught, in most cases, by an attendant prior to being enrolled in the retarded trainer-child program.

The initial test for any part of the program is the same test as the final test for that same part: both tests have the same tasks repeated the same number of times and arranged in the same random order. The two different labels; initial and final, are meant only to describe the times of testing a student:

1. initial testing is done before training on a part.
2. final testing is done before passing a student on a part and ending that particular training.

Whenever giving initial or final tests, the attendant should praise the student (and, if on tokens, reinforce with a token) for all his responses to each test task. During testing praise all correct, partially correct and incorrect responses but do not praise a student when he does not respond at all. However, when a student is being trained, the trainer will not praise incorrect responses or no responses but only correct and partially correct responses. Testing a student should not include teaching that student during the test.

General Testing Rules for Initial, Intermediate and Final Testing of Students

1. Wait for or get the student's attention before presenting the task.

2. Present tasks one time and then give the student a chance to respond.

3. Test the student: do not teach him how to do the task, but try to see how much he can do without any help or hints.

4. Be sure to give the student enough time to respond before going to the next test task.

5. Keep a record of how the student performs on the task:

   + correct (+) partially correct
   - incorrect 0 no response

6. Generally, for most parts on the language training program, each task is given to the student two times on the initial, intermediate, and final tests.

7. The order of all the tasks given to the student during testing on the initial, final and intermediate tests, should be a mixed-up or random order which is determined before beginning the test (all items are listed in a mixed order, making sure, in most cases, each task is tested two times, but not necessarily in a row.)

8. Unlike during training times, praise and tokens are given to the student during the test for all his responses, correct, incorrect, partially correct, but not for a no response. Food, object, or activity reinforcers may be given at the end of a test for each part; during the first testing session(s) a student may be reinforced with tangible reinforcers more often to evoke a higher response probability.

9. The complete MLAP, when given by a knowledgable tester to a student who scores in most of the 7 phases, generally takes 1 to 1½ hours to give; the testing may be broken into shorter 30 minute sessions if desired so as not to affect the results negatively.

10. Which tests should be given:

    a. For experimental purposes or to determine a student's complete baseline repertoire of language skills as measured by the MLAP, each student is given the final tests on at least all the following parts:

       phase 1 - all parts: a-d

       phase 2 - all parts: a-b

       phase 3 - parts a-c; part d is tested only if there is one or more correct responses on part 3-c.

       phase 4 - parts a-d; part e is tested only if there is one or more correct responses on part 4-a.

phase 6 - parts a-d; part e is tested only if there is one or more correct responses on part 6-a.

When one or more correct responses occur in phases 4 and 6 the student is tested on the parts of phases 5 and 7 respectively that correspond to the skills in the parts where successes occurred in phases 4 and 6. For example, part 5-b (putting objects on room parts) depends upon the skills in parts 4-a (touching objects) and 4-b (pointing to room parts); therefore if a student scores at least one correct response in parts 4-a and in part 4-b then 5-b must also be tested.

b. For less formal uses of the MLAP one may test a student until a part is failed in phases 1 or 2 and then begin training. If the first two phases are passed completely then the student is eligible for training on a number of parts during training sessions rather than merely one at a time. Therefore using the less rigorous testing rules the student is tested in phase 3 until a training part is identified and also tested in receptive skills until one or more training parts are identified. To determine expressive training parts, the expressive portions of the MLAP which depend upon the corresponding receptive skills should be tested if there is a receptive part passed. Therefore regardless of test performance in the vocal imitative skills, if a student passed part 4-c (pointing to body parts) then the corresponding expressive part may be tested, part 6-c (naming body parts).

A.3 Student Performance on the Attending Tests

a. The test for part 1-A: sitting requires that the student sit for at least 30 seconds without any restraints or rewards for doing so. The test for part 1-B: getting rid of movements that interfere with training requires that the student sit without repeated stereotyped movements of the hands (hand waving, hand staring, etc.) feet (repeated kicking, shuffling, etc.) or body (rocking). If both these tests are passed, the student may move directly to Step 4 in flow chart A.

b. If the student fails one or both of these tests (1-A, 1-B) then the attendant will directly train the student according to the procedure in the part-by-part training description until he passes both tests. It is easier for an attendant to train these two skills while it is rather difficult for a retarded trainer. When a student can pass both final tests, then he may be enrolled in the retarded trainer program.

A.4 Teaching order of tasks on each part and arrangement of training cards.

The student's performance on the initial tests is most helpful in determining the order for the trainer to teach the new tasks. The tasks the student gets partially correct: (+), are usually more easily learned than those he performs incorrectly: - ; also, those tasks he performs incorrectly tend to be easier to learn than those to which he makes no response at all: 0. The tasks on each part that generally are easier according to the results of the initial test, should be taught first by the trainer. If the student got any tasks correct on a part, the trainer may be programmed by arranging the training cards, to begin training with one or more of these tasks so as to start each session with success.

The general teaching order, from first or easiest, to last or most difficult, based on the student's initial test results is as follows:

1. tasks performed correctly once and incorrectly once by the student
2. tasks performed partially correct
3. tasks performed incorrectly but responded to by the student
4. tasks not responded to by the student

The trainer card files have 3 pictures of every task in each of the 27 parts in the program. This is because a student first learning a task will benefit by having to perform part or all of the response to that task 2 or 3 times consecutively rather than only once at a time. The 3 pictures of the same task would be placed in the trainer's card holder, one right after the other so that the student is asked to perform this task 3 times in a row (e.g. in part 2a the task, hitting the table with a toy hammer, would be presented and responded to three times in a row by the trainer as he follows the three cards which picture this task.) If more than 3 times on one task is needed in a single session, the trainer can train all the tasks in a short series and then repeat the whole series again.

As a student begins to successfully perform tasks in a part being trained, the task cards may be mixed in the following ways to strengthen the student's ability to respond correctly to the task:

a. When it is presented only once rather than 2 or 3 times in succession.

b. When a task is presented in a random order with other tasks in that part rather than in an easy-to-difficult arrangement.

The type of card holder for the trainer may be adjusted to fit the trainer's ability to move his fingers and hands with control. In most cases, a "merry-go-round" recipe file can be used to hold the training cards (3x5) in a fixed sequence (order from Roto Photo, Chicago, Ill., Model RF6-P.) However, a pocket chart which displays all tasks to be trained in a vertical order on a large flat piece of cardboard could be used to eliminate the fine motor control needed by the trainer to turn each page in the recipe file card holder.

A.5 Teaching the retarded trainer how to train a student

Initial training should begin with a demonstration by the attendant on the student of the particular procedure to be trained as the trainer is watching. This first demonstration should proceed slowly and should be geared to the trainer's comprehension level. The attendant should continuously check to see if the trainer is watching. The demonstration will be given and verbally stated in a simple way by the attendant in the following step-by-step order:

a. look at the task card, verbalize the task and set up any materials needed for that task

b. present the appropriate command for that task to the student when he is attending

c. wait for a response, prompting only if needed

d. praise all correct and partially correct responses (regardless of whether you had to prompt or not) with words, smiles, a pat, and either a token or food (depending on the student) immediately after the response

e. turn over the task card just done to the next task card and proceed back to step a.

Next, allow the trainer to imitate all the steps above as demonstrated. Provide as much assistance as needed and praise any correct or partially correct attempts by the trainer. Depending on the trainer's ability to reproduce the teaching procedure, one of the following steps is taken by the attendant next:

a. Trainer makes no attempt to copy the demonstration or gives a totally incorrect imitation on the student: The same demonstration is repeated slower and in smaller steps: e.g. look at training card, verbalize task, ready materials and then let the trainer imitate procedure thus far.

b. Trainer makes a partially correct attempt to copy the demonstrated training procedure on the student: The same entire procedure is repeated expecting and helping the trainer to give a better imitation of the training on the student than in his first attempt.

c. Trainer correctly copies most or all steps of the demonstrated training task: The task card is turned (step e) and the next different task is demonstrated showing all the 5 steps (a through e above mentioned) and allowing the trainer to imitate again.

d. Trainer correctly copies the entire demonstration: The next different task card is located and explained and/or shown (either in isolation or on the student) but it might not be necessary to repeat all steps of the demonstration, i.e. presentation to student, prompting and reinforcement may be omitted in the demonstration. However, the trainer should be observed as he tries this second task with the student so as to check his second performance to see if further explanation is needed.

It is very important to provide much vocal assurance and praise to the trainer as he works with the student in the initial training sessions. If the student appears to be responding positively to the trainer, comments to emphasize this seem to be very reassuring to the new trainer (e.g., "Look how he is working and smiling for you": "I think he likes his new teacher!")

Careful prior matching of the student in areas of speech ability, aggressiveness, and physical limitations with the trainer will avoid many problems later between the two. Also, when discipline of the student is needed, it is important that the trainer give the discipline to the student with guidance from the attendant as needed. This is to encourage independence of the trainer in his ability to control the student from the beginning of their contact together. Finally, trainers should be encouraged to physically accompany their students to and from training sessions whether this means holding their hands, pushing their wheelchairs or having the student push the trainer's chair. Again, this encourages independence and trainer control over the student.

A.6 General supervision of trainer-student pairs during training sessions

A number of ways may be successfully used to supplement the further instruction of the trainer and to maintain a high level of correct teaching behavior.

a. "Veteran" trainers who have worked in a program before may be used rather than attendants to demonstrate specific training procedures.

b. Prior to each session, review demonstrations may be given by the attendant on the student to remind trainers of the teaching procedures and to reinforce and maintain the trainer's good teaching techniques.

c. Demonstrations should be used each time a new task in an already trained part of the program is initiated and when tasks in a new part of the program are begun. Also, whenever it is necessary to change the training procedure for a particular task already worked on in prior sessions, new demonstrations are necessary to change the trainer's teaching procedure with the student (this may occur when one training technique does not seem to be working with the student and another technique must be tried.)

d. Training sessions may be interrupted with demonstrations or vocal instruction whenever training errors occur so as to keep the trainer's performance at a high level of correct responding.

e. The most important factor in maintaining a trainer's good teaching performance is to provide vocal reinforcement throughout the training sessions following his correct performances in instructing the student (e.g. "That's great, I like the way you said 'Good boy' and gave John a pat." "Good, you remembered to say "Do this.'" "That was very good.")

f. Trainers should not continuously be prompted except during initial times of new introducing training procedures. Unless the attendant can fade out her assistance and vocal reminders, the trainer will not be able to effectively train without the attendant's continual presence.

Screens to visually separate attendants from trainers during sessions are helpful in encouraging independence and fading out direct assistance as the trainers become more skilled. These can be present from the first day of training and used in increasing amounts.

A.7 a. Observation of the student's performance during the training sessions:

As the student is being trained, the supervising attendant should observe his performance on those parts of the program being trained. If it appears that the student is responding correctly on the same tasks or on any of the tasks in a given part, then that student should be tested by the attendant as outlined in 7 b. This intermediate testing is done to keep the training program at an instructional level for each student rather than merely reviewing old tasks already known by the student. Intermediate testing is different from initial and final testing only because a portion of a part in the MLAP is tested rather than the whole part.

Before giving intermediate tests of particular tasks, the student should be observed to be performing correctly on all or most presentations of those tasks by the trainer:

1. without any prompting or assistance given by the trainer
2. and when that task (or those tasks) is given in a mixed up order with other tasks in that part of the program

For example, if a student is able to show the trainer the ball and the spoon repeatedly without any assistance by the trainer (pointing to correct object, moving student's hand to object, etc.) when being trained in part 4 a, "Understanding Single Words that Label," and that student continues to make the correct choice even when the commands to show the trainer the ball and the spoon are given in a mixed-up order with the commands to show the trainer the other six objects, then it would be time to test the student on these two objects.

Observations of the student as he is being trained may be made more accurate when a written record of his performance is kept. Each performance would be scored +, partially correct (+), incorrect -, or no response 0 or NR. Also, one should note whether the correct response of the student's was correct with or without prompting by the trainer. For example, if the student touches the asked for object after the trainer lifted his hand and placed it on that object, then this would be recorded as a correct response with help or prompting (see written record below of this example.)

Student Bill

Date 7-18-72

Attendant Mary

Trainer John

☑ TRAINING OBSERVATION

☐ INITIAL TEST

☐ INTERMEDIATE TEST

☐ FINAL TEST (1 2 3 4)

KEY:
+ correct response
(+) partially correct
- incorrect
0 no response

Program Phase and Part 4a

Teaching Order	Task	Prompts	Response	Teaching Order	Task	Prompts	Response
	ball		+		comb	✓	+
	spoon		+		car		-
	hat	✓	+		car	✓	+
	comb		(+)		ball		+
	spoon		+		key		0
	ball		+		key	✓	+

A.7 b. Intermediate Tests

These may be given to the student before or after training sessions at any time during the training of a particular part. The intermediate tests are used to recheck the student's performance on tasks correctly performed during the initial test or on tasks learned during training by the trainer. Each of these tasks is presented two times in a mixed-up or random order. It is helpful to write out the mixed order on the test form before beginning to test. If the student gets 90% correct, the tasks tested need not be worked on during training sessions again (unless one or more of these are to be used to begin each session so as to give success to the child initially). The 90% correct is determined by dividing this number by the total number of tasks given on the test; the answer is then multiplied by

100 to give a percent number.

$$\frac{\text{total number of correct responses}}{\text{total number of tasks given on test}} \times 100 = \%\text{ correct}$$

Examples: $\frac{\text{10 correct}}{\text{10 total tasks}} = 1 \times 100 = 100\%$

$\frac{\text{5 correct}}{\text{10 total tasks}} = .5 \times 100 = 50\%$

If the student does not get 90% correct (as in last example) on the intermediate test, any failed task must be reprogrammed, using the training cards, to be taught again by the trainer. Old tasks, such as these, are retaught before introducing new tasks. These tests should be given to the student at least every week (if training sessions are held daily) so as to keep introducing new tasks as old tasks are learned.

The intermediate testing, unlike the initial and final testing does not require that all the tasks in a part be tested. Therefore, if a student who has been getting some training in the motor imitation phase: with objects (part 2a), seems to be imitating the trainer most of the time on the tasks: hitting the xylaphone and hammering the table, then the attendant may just test these two tasks rather than all the tasks in that part. Both tasks would then be listed in a mixed-up order on the test form and, with the student and equipment ready, the attendant would test the student. If the student gets 90% correct, his trainer could stop working on these particular tasks during training sessions. (In order to get 90% correct on this 4 item test in the example, two tasks given each twice--the student must get all the tasks correct; only when the length of the intermediate test reaches roughly 8 or more, can the student still be passed on a test where one error has been made.)

In the example, under 7a, since Bill appears to be getting the "spoon" and "ball" tasks in part 4A correct without prompting from the trainer, then the attendant also may want to give an intermediate test on just these two tasks. She would construct the test in the same manner as an initial or final test:

a. list test asks ("spoon", "ball") two times for each task

b. in a random order

c. on a test sheet prior to testing student

A.8 Re-arrangement of training cards following changes in student's performance as a result of training

As in step 4 of the flow chart procedure, the intermediate testing results and the observations during training help the attendant make decisions on adjusting the training cards for the trainer so that for a part being trained, the following adjustments might need to be made: learned tasks are omitted, (or programmed only occasionally for review), new tasks are added, partially known tasks are put in a mixed order, etc. Generally the same suggestions given to arrange cards following initial testing are again used to arrange cards at an intermediate time during training a particular part: therefore, refer to step 4 on page 10.

A.9 Final testing

Final testing on a part of the program being trained should be done when intermediate testing and observations by the attendant seem to indicate that the student is able to correctly perform all tasks in a part without prompts and in a mixed or random order with all other tasks in that part. The final test for a part is given as described in the part-by-part description and according to the General Testing Rules on page 7. The test is scored by adding all correct responses. This total score is compared with the criterion number of correct responses needed to pass that particular part (see part-by-part description).

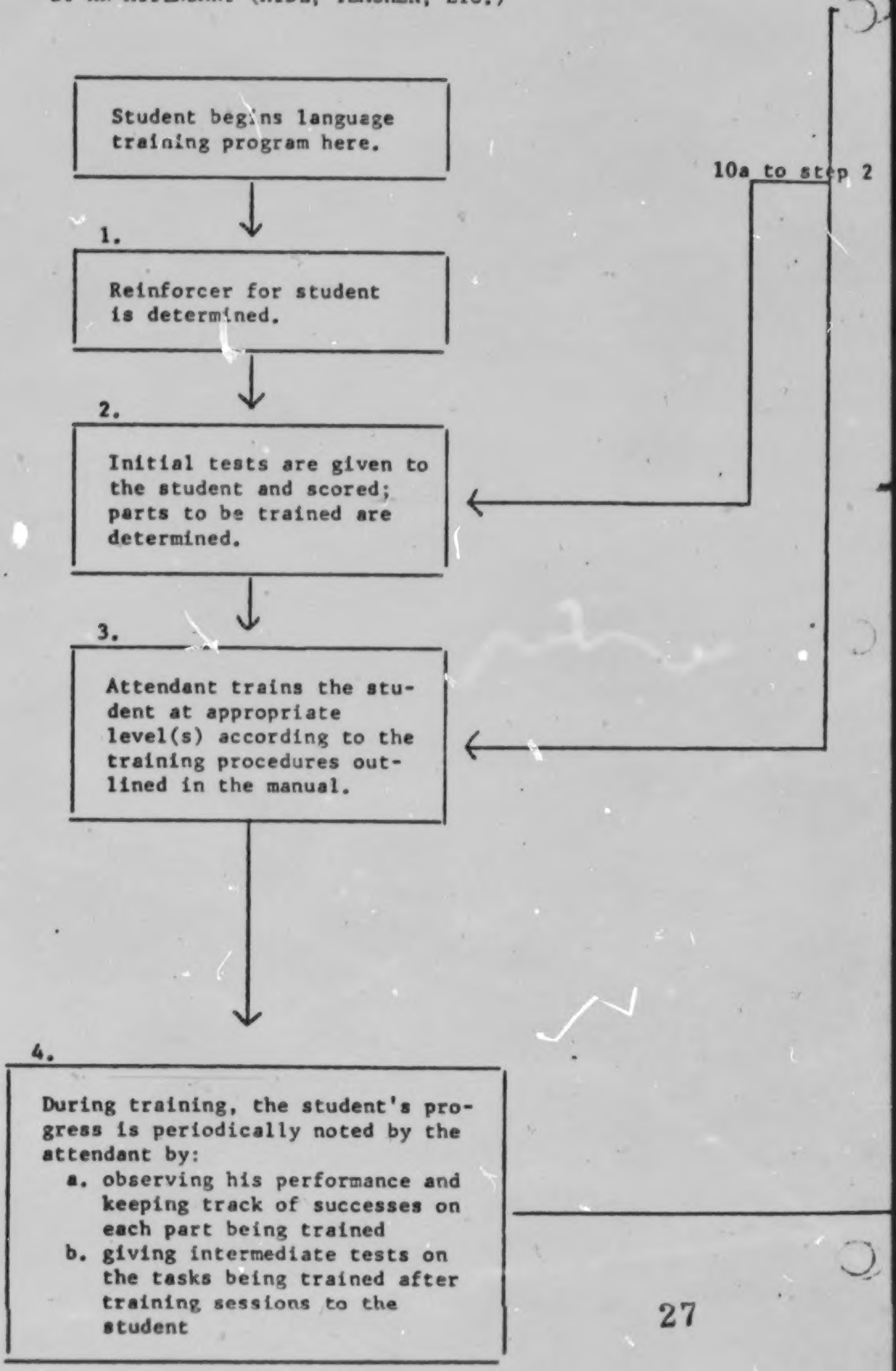
A.10 a. Student passes final test for a part

If a student gets the appropriate number of correct responses (criterion score) on the final test in order to pass that part, training on that part may be discontinued and other training on new parts may be added to the student's program. (Go back to step 2 in the flow chart procedure) Only on a few tests does the student need to have a perfect final test score: therefore, the part-by-part description must be checked in order to determine if his performance on the part tested is good enough to be criterion passing performance.

A.10 b. Student fails the final test for a part

If a student misses enough tasks on the final test for a part as indicated in the part-by-part description, then training on the failed items in that test (those scored as partially correct, incorrect,and as a no response) is continued by the trainer. The attendant should re-arrange training cards appropriately and adjust the training procedure if needed (go back to step 6 in the flow chart procedure.)

B. FLOW CHART OF THE MLAP FOR DIRECT TRAINING OF A STUDENT OR STUDENTS BY AN ATTENDANT (AIDE, TEACHER, ETC.)



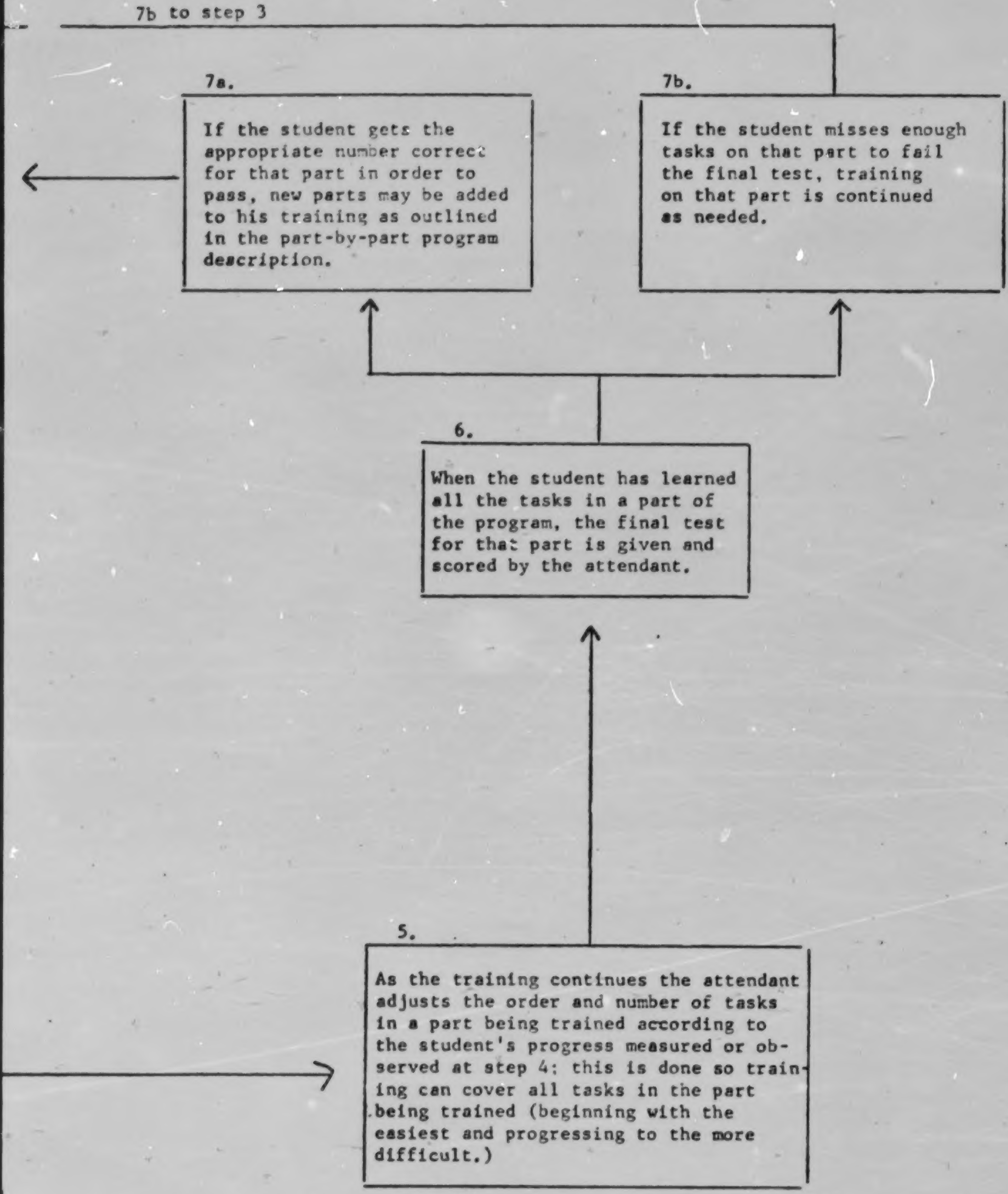
Student begins language training program here.

1. Reinforcer for student is determined.

2. Initial tests are given to the student and scored; parts to be trained are determined.

3. Attendant trains the student at appropriate level(s) according to the training procedures outlined in the manual.

4. During training, the student's progress is periodically noted by the attendant by:
   - a. observing his performance and keeping track of successes on each part being trained
   - b. giving intermediate tests on the tasks being trained after training sessions to the student



7a.

If the student gets the appropriate number correct for that part in order to pass, new parts may be added to his training as outlined in the part-by-part program description.

7b.

If the student misses enough tasks on that part to fail the final test, training on that part is continued as needed.

6.

When the student has learned all the tasks in a part of the program, the final test for that part is given and scored by the attendant.

5.

As the training continues the attendant adjusts the order and number of tasks in a part being trained according to the student's progress measured or observed at step 4: this is done so training can cover all tasks in the part being trained (beginning with the easiest and progressing to the more difficult.)

B.1 Determining reinforcers for the child or person being trained: refer to A.1 page 4.

B.2 Initial Testing: refer to A.2 page 7.

B.3 Attendant Trains Student

An attendant (aide, teacher, etc.) may train a student or a group of students without the use of a retarded trainer. The student's initial test is scored to determine beginning training levels. It is not necessary to use trainer cards to identify training tasks and task order. Instead, the attendant would carefully read over the descriptions of the parts to be trained (See Section II) and select the appropriate training materials. If the procedures are unfamiliar to the attendant, she might want to practice them first with the student to be trained (or another student first at the same language level or higher). During the initial training sessions, the level of prompting needed should be determined - how much and what kinds of assistance does the student need to make the correct response? Also, task order should be determined according to the initial test results and the suggestions in Section I. A.4.

Next, formal training sessions may begin. These can range from 20 to 40 minutes depending on the student's level of attention; often two or three sessions may be done in one day, each separated by a few hours.

It is best to train in an area where few interruptions will occur. However, training should be done as close to the student's daily environment as possible (ward, classroom, etc.); this is for two reasons: to make it more likely that the learned responses will generalize to daily non-training situations and with most attendant/student ratios being low, it may save time to train close to the classroom and thereby allow more training to be done. Therefore, a quiet area in or near the classroom or ward, perhaps blocked off by screens, would be best.

NOTE: Other important ways to get the student to use his pre-language and language skills at times other than during training sessions and with other people include the following:

1. Planned reinforcement at non-training times of those responses that have been learned in the training situation (for example, rewarding a child who reliably names an activity during training sessions, part 6.D, for naming that same activity during a play period outside).
2. When a student appears to have learned a particular skill, training sessions could be moved from outside the classroom to in the classroom, or the partitions in the classroom could be removed.
3. When a student appears to have learned a particular skill, another attendant could continue training the student on that skill.
4. As a particular skill relaibly occurs in training sessions, training materials are varied so the student learns to respond to a variety of objects rather than only to a single object (for example, a ball is still called a "ball" whether it is blue or red or is large of small).

When using the above suggestions the trainer must remember that the task, although known by the student in a training situation, may need to be relearned when commanded in a new situation (new place, materials or trainer). Therefore, once a student is requested to demonstrate a learned skill in a new situation, the command or question should be phrased in the same way as during training sessions (for example, in part 4a. continue to use the command "Show me the ________.") Also the student may need prompting or more assistance to make the same response in the new situation - do not hesitate to provide this assistance and reinforcement for partially correct attempts by the student; later this assistance will be faded out.

B.4 Observation of the student's performance during the training sessions: refer to A.7.a. and b. on pages 14 through 16.

B.5 Adjusting training order and procedures on an MLAP part to fit the student's progress:

The student's performance on the intermediate tests and during observations on the initial tests is most helpful in determining the order for the trainer to teach the new tasks. The tasks the student gets partially correct: (+), are usually more easily learned than those he performs incorrectly: - ; also, those tasks he performs incorrectly tend to be easier to learn than those to which he makes no response at all: 0. The tasks on each part that are generally easier to learn, according to the results of the initial test, should be taught first by the trainer. If the student got any tasks correct on a part, the trainer may begin training with one or more of these tasks so as to start each session with success.

The general teaching order, from first or easiest to last or most difficult, based on the student's initial test results is as follows:

1. tasks performed correctly once and incorrectly once by the student
2. tasks performed partially correct
3. tasks performed incorrectly but responded to by the student
4. tasks not responded to by the student

B.6 Final Testing: refer to A.9 on page 18.

B.7.a If a student passes the final test for a part: refer to A.10.a on page 19.

B.7.b If a student fails the final test for a part: refer to A.10.b on page 19.

C. General suggestions for handling misbehaviors by students during training sessions:

Three main techniques are used to decrease any misbehaviors occuring during training sessions. These techniques may be taught to a retarded trainer and used by that trainer with his student upon the occurance of misbehavior or they may be used by the attendant, aide, or teacher who is training students directly.

Method I: Ignore misbehavior and praise or reward other behaviors that are incompatible with the misbehavior

This technique will be used most frequently and is applied when the misbehavior is rather minor, occurs infrequently, and does not seriously interfere with training. Examples of these behaviors are: a) inattention to task, b) leaving chair, c) throwing training materials, d) yelling out, e) whispering response rather than saying it in an audible voice (if the student normally talks in an audible voice). When such a misbehavior occurs, the following procedure is followed by the trainer:

1. the misbehavior is ignored (no tokens, verbal comment, smiles, touches, etc. are given to the student immediately following the misbehavior)
2. a command for appropriate behavior is given and if necessary, the student is prompted to complete the appropriate behavior so he can be immediately rewarded (therefore, the above examples of misbehavior are ignored and the following commands might be given: a) "Look at me," b) "Sit down," c), d), e), to ready the next language training task give command for student to perform. Examples of prompts or assistance that may have to be given by the trainer to the student if he does not complete the commanded behavior on his own might be: a) turn

student's head, b) gently direct student to chair and if necessary sit him down, c), d), and e) assist student in initating performance on the language training task commanded). NOTE: If an appropriate behavior occurs following the inappropriate behavior (student returns to chair on his own) then language training is continued and the student is generally not praised for his undoing of the misbehavior since the pattern of "misbehavior-undoing-of-misbehavior" may increase; rather he is rewarded for his efforts on the language training command given by the trainer.

If the trainer is able to consistently ignore the inappropriate behaviors and reinforce the behaviors that are the opposite or are incompatible with the misbehaviors then the misbehavior will decrease greatly over time.

Method II: Ignore the misbehavior by giving the student a time-out from your verbal and visual attention for a short period immediately following the misbehavior coupled with praise or rewards given for other behaviors that are incompatible with the misbehavior

This technique may be used when the misbehavior does not decrease after repeatedly and consistently trying method #1. Also this method may be used to decrease more serious behaviors that cannot be ignored without further problems: hurting others, destruction of materials.

At the time the misbehavior occurs, the following general procedure is taken by the trainer:

1. A firm "No," is spoken to the student immediately following the misbehavior (nothing else is said)
2. The student is immediately put into a time-out situation or placed there with as little attention given as possible

a. a mild time-out consists of the trainer quickly removing materials from the immediate view and reach of the student (this may be omitted if student cannot or does not tend to grab materials or enjoy looking at them) and by turning his head away from the student ending all eye contact and verbal interaction for from 30 seconds to two minutes or as soon as the misbehavior stops following the time out limit (see "length of time-out" below)

b. Another mild form of time-out consists of the trainer leaving the student alone at the training table or in the training room immediately following the misbehavior for from 30 seconds to two minutes or as soon as the misbehavior stops following the time-out time limit (see "length of time-out" below). This procedure as well as a) is easily applied but should not be used with students who will entertain themselves with materials or destroy materials in the room when without supervision of the trainer. However, if it is possible to remove materials in a few seconds as trainer is leaving room then this procedure could be used with such students.

c. Time-out also includes removal of the student from the training situation immediately following the occurance of a misbehavior. An example of this would include leading the student quickly to a chair placed in the corner of the trainer room facing the wall; this procedure can be used with students who will sit for short periods of time in a chair without any reminders. However, if the student leaves the chair before the time limit (from 30 seconds to 5 minutes) then the trainer should direct him back to the chair without any attention, eye contact or words.

d. The most intensive form of time-out is used only when other methods do not work to decrease the misbehavior or when the student will not remain in the other suggested time-out situations. This consists of removing the student to a bare room immediately following the misbehavior without giving him any attention in the process. He would remain there only for the time-out limit or for as soon as the misbehavior stops following the time-out time limit. The time out room may be a well-ventilated and lighted closet or small room; in addition to these places, a chair with a restraint to hold the student in the chair can be used if no such room is available. Especially when this level of time-out is used, the trainer should use a cooking timer or a watch with a second hand so that the length of time is not extended beyond the limit. Also, it is a good idea to keep a count of the number of times the misbehavior occured prior to using time-out (baseline count) and during time-out procedure (treatment count) so that the trainer can compare the two and determine whether the misbehavior is decreasing or not.

3. As soon as time-out time limit has ended or as soon as the misbehavior has stopped following the end of the time limit, the student is returned to the training situation (a & b: trainer replaces materials and faces student; c & d: trainer signals or brings student back to the training situation). The trainer then presents a training task and rewards and praises any attempts of appropriate behavior by the student; prompts are given if needed so that the student may be praised for appropriate behavior. It is important to praise any and all appropriate

behaviors following a time-out so as to increase the likelihood that the appropriate behaviors will occur more often and the misbehaviors will not re-occur as an effort by the student to get attention.

4. If the misbehavior re-occurs, no matter how soon following the last time-out, the exact same time-out procedure is repeated again, followed next by step 3. Often a misbehavior may increase when a trainer first applies a treatment such as time-out since the student appears to be "testing" the new rules a trainer is applying; consistency is, therefore, important so the student can learn which behavior is being timed-out, only then will that behavior decrease.

Determining the length of time for time-out:

This may range from 30 seconds to 5 minutes or so and depends on the student and his misbehavior; additional time spent in a time-out situation beyond the time limit is given only when a student is engaging in a disruptive behavior (yelling, banging on table, etc.) at the end of the time limit. In this case, the trainer must be alert to the instant that the misbehavior ends whereupon the time-out is ended and training resumes. Generally in selecting a time-out time limit, start with a shorter period of time and lengthen up to five minutes only if the misbehavior does not decrease (when tried repeatedly and consistently with all other rules of using time-outs in effect). Timers or watches with second hands will allow consistency.

Determining type of time-out:

Again, try a milder form of time-out first and use additional types only when the misbehavior does not decrease. When using form d) (restraint or closed room) records should be kept as described in d).

Method III: Training session is ended; student returned to ward or classroom

This procedure is used only when the misbehavior is unable to be controlled with Method I or II; neither method works before end of training session; student is sick, etc. When this method must be used, it is important to hold another session as soon as possible where the student is allowed to have success so as not to let the student associate language training sessions with failure, frustration and misbehavior.

Alternatives to the three methods:

At times a misbehavior is most effectively decreased and appropriate behaviors are increased to replace the misbehaviors when the training centers only on this goal and all other language training is omitted. Training in Phase I: attending is an example of this where sitting in seat, sitting without incompatible motor responses, etc. are trained. The trainer may wish to make up other similar programs to train the desirable behaviors of hands in lap or on table to replace the undesirable misbehavior of throwing toys or grabbing, etc. This direct training to increase appropriate behaviors is an alternative to the methods described above.

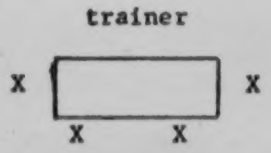
Additional misbehaviors may be decreased by adjusting aspects of the training situation such as the following:

1. making the tasks easier to allow more reinforcement for the student
2. reinforcing more often (every success rather than every third success); also includes exchanging student's tokens more often
3. decreasing outside distractions that result in misbehavior by student
4. allowing student to be physically comfortable (trips to bathroom, chair correct height, etc.)

D. Suggestions for direct training in the MLAP of small groups of students by attendants (aides or teachers)

Training in the MLAP may be more efficient or only possible for some if it is done in small groups of 2 to 5 or 6. This training is not recommended for use by retarded trainers unless the trainer appears very capable and can perform without training cards. The effectiveness of group training may be questioned over individual training even when the length of time spent per individual is the same. Therefore, the following suggestions are offered as a means of making group training as effective as possible.

1. Train in groups only when students have apssed all of Phase I: attending.
2. Try to group students by training part so all receive the same type of training (i.e. all train on part 2.a. imitation with objects or on part 4.d. performing activities). This practice will prevent having to change materials too often and each student may benefit more by observing the other students perform.
3. Keep the group as small as possible (under 4 is best).
4. Position students at a training table so each is easily viewed and can be reached if physical prompting is needed.



5. Keep task presentations to each student as fast paced as possible so a student will not have to wait longer than one minute for a turn.
6. When a student needs prompting to respond on a task, try to repeat that same task with him again before going on to another student. As in individual training, do not switch to new tasks but try to repeat the same single task or two with the same student to allow learning to occur on that task.

7. Tokens work well in holding the attention of students being trained in a group. Each student would be individually token trained prior to training in a group and each would have their own token can. Token trade-ins generally would be done for all students at the same time.
8. The trainer does not need to train in a set task presentation order with equal task presentations for each student, but may work with the student who is attending and "jump" around the group on turns to keep the attending level higher.
9. If the other students appear to enjoy training, when misbehaviors occur by one student, his turn may simply be skipped (ignoring method to control misbehavior) and given immediately upon the stopping of that misbehavior; if this method does not work to decrease the misbehavior, then the student can be timed-out by pushing his chair back from the table. This form of time-out as well as ignoring often works well in a group situation as it allows the misbehaving student to still view a desirable situation in which he is not able to participate until the time-out is over.

NOTE: Although praise and tokens may be given continuously during training, tangible reinforcement such as food or a token trade-in should be given intermittently after a student has made some progress in learning a new response. This is done to speed up training and to strengthen the new response so it will occur even without continual reinforcement. To program intermittent reinforcement for the retarded trainer, small red squares (½") may be slipped into the plastic pages of the trainer's rotary picture file to indicate when tangible reinforcement or token trade-in should be given to the student. However, the retarded trainer must be taught that praise and tokens are still given for every correct response and that tangible reinforcement is given:

1. only for a correct response
2. on these tasks that are so marked

SECTION II

Part-by-Part Description of Training and Testing Procedures in the Modified Language Acquisition Program*

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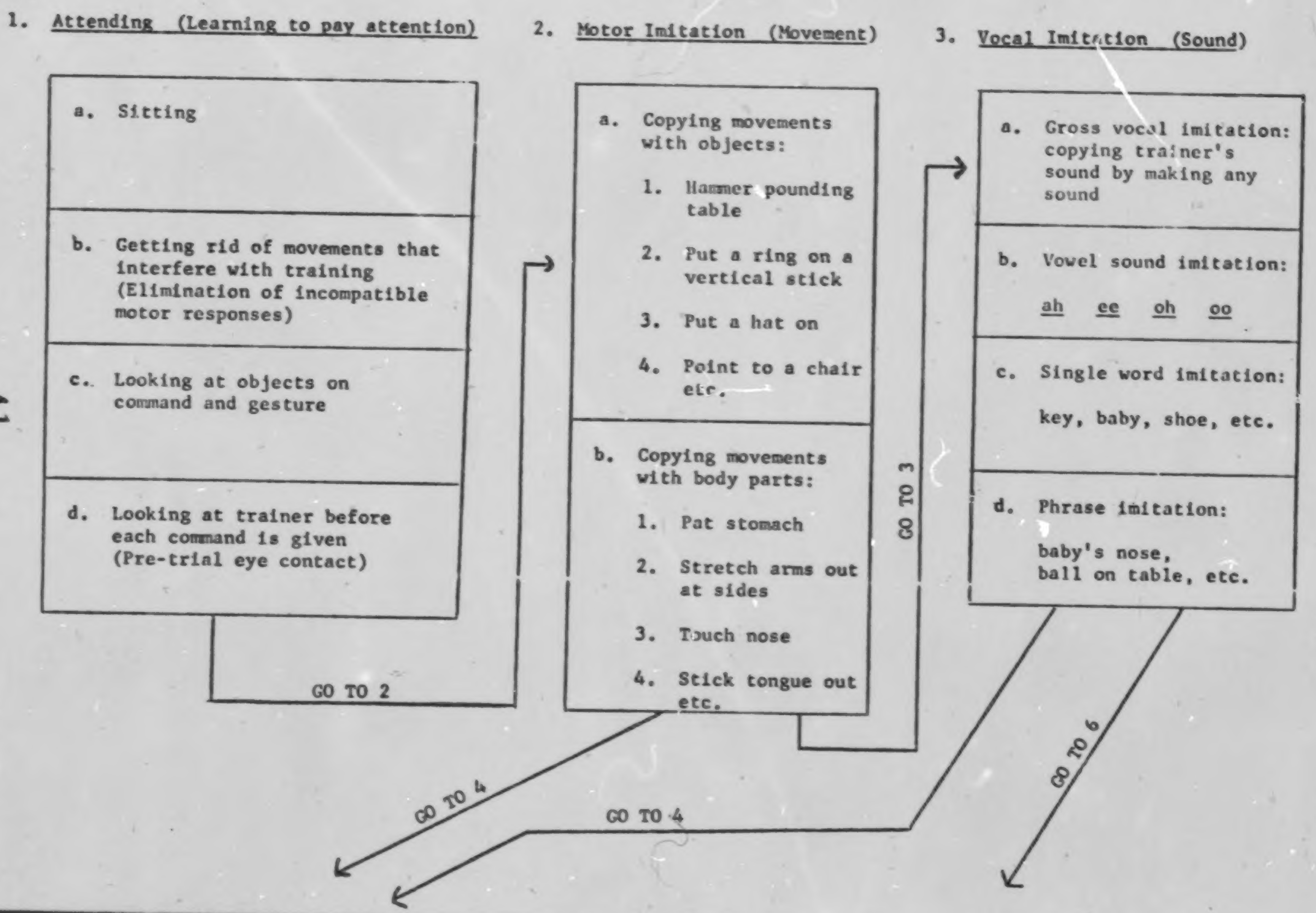
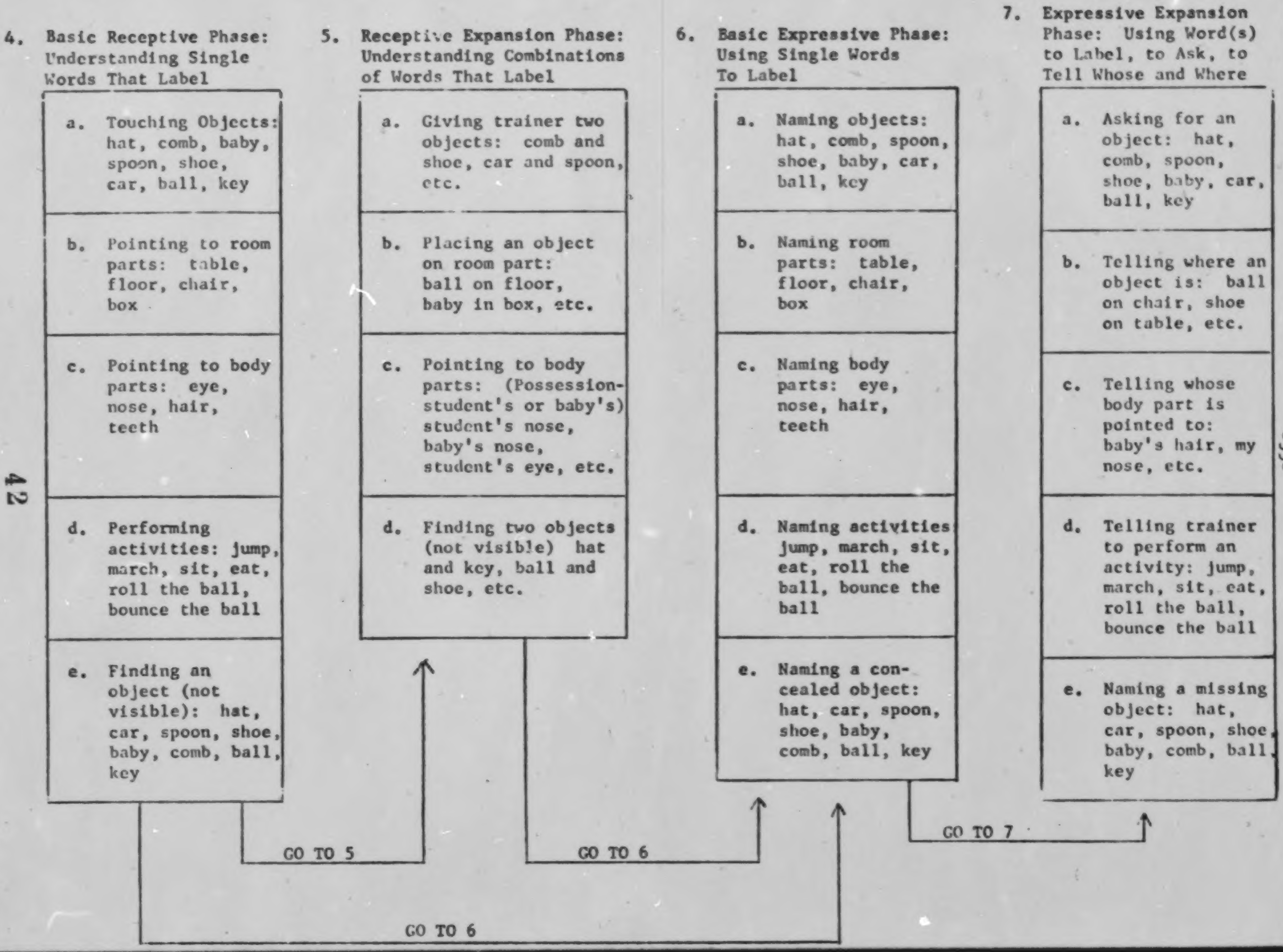
*Some of the training procedures have been adapted directly from Kent, L., Klein, D., Falk, A. and Guenther, H., "A Language Acquisition Program for the Retarded". In McLean, J.E., Yoder, D.E., & Schiefelbusch, R.L., (Eds.) Language Intervention with the Retarded: developing strategies, Baltimore, Maryland, University Park Press, 1972.

MODIFIED LANGUAGE ACQUISITION PROGRAM OUTLINE


1. Attending (Learning to pay attention)
a. Sitting
b. Getting rid of movements that interfere with training (Elimination of incompatible motor responses)
c. Looking at objects on command and gesture
d. Looking at trainer before each command is given (Pre-trial eye contact)
GO TO 2
2. Motor Imitation (Movement)
a. Copying movements with objects:
1. Hammer pounding table
2. Put a ring on a vertical stick
3. Put a hat on
4. Point to a chair etc.
b. Copying movements with body parts:
1. Pat stomach
2. Stretch arms out at sides
3. Touch nose
4. Stick tongue out etc.
GO TO 3
GO TO 4
3. Vocal Imitation (Sound)
a. Gross vocal imitation: copying trainer's sound by making any sound
b. Vowel sound imitation:
ah ee oh oo
c. Single word imitation:
key, baby, shoe, etc.
d. Phrase imitation:
baby's nose, ball on table, etc.
GO TO 4
GO TO 6



4. **Basic Receptive Phase: Understanding Single Words That Label**

- a. Touching Objects: hat, comb, baby, spoon, shoe, car, ball, key
- b. Pointing to room parts: table, floor, chair, box
- c. Pointing to body parts: eye, nose, hair, teeth
- d. Performing activities: jump, march, sit, eat, roll the ball, bounce the ball
- e. Finding an object (not visible): hat, car, spoon, shoe, baby, comb, ball, key

5. **Receptive Expansion Phase: Understanding Combinations of Words That Label**

- a. Giving trainer two objects: comb and shoe, car and spoon, etc.
- b. Placing an object on room part: ball on floor, baby in box, etc.
- c. Pointing to body parts: (Possession-student's or baby's) student's nose, baby's nose, student's eye, etc.
- d. Finding two objects (not visible) hat and key, ball and shoe, etc.

6. **Basic Expressive Phase: Using Single Words To Label**

- a. Naming objects: hat, comb, spoon, shoe, baby, car, ball, key
- b. Naming room parts: table, floor, chair, box
- c. Naming body parts: eye, nose, hair, teeth
- d. Naming activities: jump, march, sit, eat, roll the ball, bounce the ball
- e. Naming a concealed object: hat, car, spoon, shoe, baby, comb, ball, key

7. **Expressive Expansion Phase: Using Word(s) to Label, to Ask, to Tell Whose and Where**

- a. Asking for an object: hat, comb, spoon, shoe, baby, car, ball, key
- b. Telling where an object is: ball on chair, shoe on table, etc.
- c. Telling whose body part is pointed to: baby's hair, my nose, etc.
- d. Telling trainer to perform an activity: jump, march, sit, eat, roll the ball, bounce the ball
- e. Naming a missing object: hat, car, spoon, shoe, baby, comb, ball, key

Student Placement in MLAP Based Upon Initial or Final Test Results:

Direction of Training Prior to and Upon Completion of the Required Number of Correct Responses for Each Part

Phase	Part	Program part(s) needed before training this part	Program part(s) to be trained upon completio of this part
1. Attending	*a. sitting	None	1a or 1b (if no interfering behavior exists)
	*b. getting rid of motor behaviors that interfere with training	1a	1c
	c. looking at objects on gesture and command	1a and 1b	1d
	d. looking at trainer before each command	1c	2a,
2. Motor Imitation	a. with objects	1d	2b,
	b. with body parts	1d and generally 2a	3a, 4a, 4b, 4c, 4d
3. Vocal Imitation	a. gross vocal imitation: copying the trainer's sound by making any sound	2a, 2b	3b (if the child can imitate words, go to 3c
	b. vowel imitation	3a	3c
	c. word imitation	3b or some words imitated during initial testing	3d, 6a, 6b, 6c, 6d, (if 4a, 4b, 4c, 4d, respect ively are completed)
	d. phrase imitation	3c	no completion of training

*Trained directly by attendant if retarded trainer is used

Phase	Part	Program part(s) needed before training this part	Program part(s) to be trained upon completio of this part
4. Basic Receptive Phase: Understanding Words Words that Label	a. touching objects	2b	4e, 5a, 6a
	b. pointing to room parts	2b	5b (if 4a is completed) 6b
	c. pointing to body parts	2b	5c, 6c
	d. performing activities	2b	6d
	e. finding objects (not visible)	4a	5d (if 5a is completed) 6e
5. Receptive Expansion Phase: Understanding Two Words that Label	a. Giving trainer two objects	4a	5d (if 4e is completed)
	b. putting objects on room parts	4a & 4b	7b (if 6a & 6b are completed)
	c. touching body parts: possession - student's and baby's	4c plus "baby" from 4a	7c (if 6b & "baby" from 6a are completed)
	d. finding two objects (not visible)	4e & 5a	7e (if 6a is completed)
6. Basic Expressive Phase: Using Single Words to Label	a. naming objects	4a, 3c	6e, 7a
	b. naming room parts	4b, 3c	7b
	c. naming body parts	4c, 3c	7c
	d. naming activities	4d, 3c	7d
	e. naming concealed objects	6a	7e (if 7a is completed)

Phase	Part	Program part(s) needed before training this part	Program part(s) to be trained upon completion of this par
7. Expressive Expansion Phase: Using Combinations of Words to Label, to Ask, to Tell Whose and Where	a. asking for objects	6a	7e (if 6e is completed
	b. telling where an object is	6b	none
	c. telling whose body part is pointed to	"baby" from 6a & 6c	none
	d. telling trainer to perform an activity	6d	none
	e. naming missing objects	6a & 7a	none

1. Attending Phase

In order for learning to take place, a student must be able to pay attention to a trainer. The attending phase is designed to assess and train the student's listening and looking abilities: sitting in a chair, not engaging in movements that interfere with training, looking at objects on the trainer's command and gesture, and looking at the trainer before each command is given.

1a. Sitting:

Test: The attendant brings the student towards a chair and seats him using the command "Sit" and pointing to the chair. The student may be praised for sitting but no further praise or prompts and no restraints can be used for the 30-second test. The attendant sits in a chair and faces the student in a knee-to-knee position. A watch with a second hand should be used to record how long the student remains in the chair without getting up. If the student remains seated for at least 30 continuous seconds, he receives a passing score of 30 points. Any score less than this number of seconds of continuous sitting is not a passing score; if a person receives a less than 30 score, the attendant should use the training suggestions below until the person is able to sit for 30 continuous seconds.

Training: The attendant places the student in the chair saying, "Sit down," and immediately praises and reinforces him with a small amount of favorite food. The trainer proceeds to increase the student's sitting time by waiting longer to give reinforcers each time; thereby reinforcing him for successively longer periods of sitting. (Initially, it may be necessary to physically restrain the student in the chair by holding him there, never by tying.) The shaping procedure is continued until the student sits for 30 seconds without physical restraint or prompting before being reinforced. If during any one training trial he leaves his seat, the trainer commands him to sit down, reseats him, and if necessary, reinforces him at the shorter sitting time used on the previous training trial before he left his seat. If the student continues to leave his seat as the attendant tries to lengthen the sitting requirement for reinforcement, then the training should proceed at a slower rate. For example, if the student sat for 10 seconds during the initial testing, then he must do this again when seated in order to receive praise and food. If he continues to do this 3 or 4 times in a row, then the sitting time requirement should be increased by a few seconds (12 seconds or so). Generally, this is a gradual process but the speed of training depends on the student's success at sitting for the increasing periods of time.

1b. Getting rid of movements that interfere with training: (Elimination of incompatible motor responses)

- Test: Occasionally a student will exhibit movement patterns which do not allow one to sit still, such as rocking, shuffling or kicking feet, or stereotyped movements of hands and arms. If the trainer observes such incompatible behaviors, the following training procedures are offered. If a particular procedure appears to be ineffective, the trainer should not hesitate to discontinue its use and to try a different one. The test is the same as for the sitting part (1a) except the student is expected to sit without those incompatible movements for 30 seconds to receive a correct response and passing score. Scores less than 30 seconds are not passing and those persons need to be trained directly by an attendant.

Training: Rocking is a frequent stereotyped motor behavior among retarded persons. The following procedure has been helpful in eliminating it in the training sessions. The trainer sits facing the child, knee to knee; physically restrains the child from rocking; and says, "Stop." The trainer reinforces the child immediately while movement is stopped. The trainer gradually withdraws physical restraint and lengthens the time interval required prior to giving a reinforcer.

Incompatible hand movements (waving, staring at hand, etc.) are those which compete with the trainer and the learning situation for the student's attention. Again, the trainer sits facing the student knee to knee. The trainer places the student's hands in the student's lap and immediately reinforces him. In this particular situation, the trainer should place the edible reinforcers directly into the student's mouth rather than in his hand. The trainer gradually lengthens the time required until he sits with his hands in his lap for 30 seconds. Incompatible foot/feet movements are dealt with in essentially the same manner as that described for hands.

In some cases, demonstration of the appropriate sitting still behavior by the trainer is helpful; however, this type of prompt cannot be expected to be effective unless the student can imitate motor movements. In some cases, it has been possible to eliminate an undesirable behavior by simply ignoring the student while he engages in the inappropriate behavior.

1c. Looking at objects on command and gesture:

Test: The attendant places five objects in a row on the table in front of the student. Pointing to an object, the examiner says, "Look at this," and notes carefully whether the student looks as directed following the command. As discussed in the general testing rules, no commands should be given until the student shows some attending (face is in direction of attendant, hands and feet are still, etc.) The student gets a correct response for every time he looks as commanded. Each correct response is worth one point; five points, or 100% correct performance, is required in order to pass this part. If a student does not pass this test, he needs training until he does. (Training may be given by a retarded trainer using picture cards to guide his training procedure.)

Training: The trainer places an object on the table and points to it saying, "Look at this." If the student looks at the object, he is reinforced. If he does not respond or responds incorrectly, the trainer may use a physical prompt such as turning the student's head toward the object or moving the object close to the student's face. If prompts are not effective, it may be necessary for the trainer to use small boxes containing edibles rather than the objects. The trainer moves a small box containing a few edibles close to the student's face and says, "Look." The trainer may tip the box slightly toward him at first. If he looks into the box, the trainer immediately reinforces him with an edible from the box. The trainer then places the box on the table and points to it saying, "Look." If he does not respond or responds incorrectly, the trainer may use the prompting procedures. Once the student looks at one box on the table, the trainer introduces a second and third box spaced about the table and teaches him to look at them. This procedure is continued until he looks at each box correctly two times. The trainer then begins to substitute objects for the boxes of edibles. The objects are introduced one at a time until all three boxes have been replaced with objects. The trainer then proceeds to introduce a fourth and finally a fifth object.

1d. Looking at the trainer before each command is given (Pre-trial eye contact):

Test: The attendant again places five objects on the table and directs the student to look at each by pointing and saying, "Look at this." The attendant does not merely record whether the student looks at the object as in part 1c but the attendant must also note whether he looks up at the attendant prior to each "Look at this," command. Therefore, the attendant should wait about 5 or 10 seconds to give the student a chance to look before the command is given; if the student does not look, then the command is given anyway and this procedure is repeated five times. A correct response requires that the student first look at the attendant before the command is given and then look as directed at the object. If the child only does one of these two things, then he is scored with a partially correct response. Only correct responses are totalled and a passing score is five correct responses out of five trials, 100%. Training is needed if the child's performance is less than this.

Training: The trainer places two to five objects on the table. Prior to each trial, the trainer says, "Look at me," or calls the student's name. If the student looks at the trainer, the trainer then says, "Look at that," pointing to one of the objects. If he looks at the object, he is immediately reinforced. In a sense, the trainer uses the presentation of a "Look at this" trial as a reinforcer for pre-trial eye contact. When the student looks at the trainer on command prior to looking at the object in three consecutive trials, the trainer then begins to delay the command, "Look at me" for a few seconds, waiting for the student to look at the trainer without the command. This procedure is continued until the student looks at the trainer without a command prior to the presentation of each "Look at this" trial for five consecutive trials.

Although it may be a function of institutionalization, it has proven to be extremely difficult to train most children worked with to respond to "Look at me." Although the above procedure may appear to be unnecessarily complex, it has been more effective than teaching the two responses separately. In some instances, it is helpful to call the student's name prior to saying, "Look at me."

2. Motor Imitation Phase

If a student can imitate movements, the trainer can use this skill as a teaching tool in later portions of the program. For example, to get a student, with imitative skills but without skills of understanding words, to fold his hands, to show the trainer a particular object, or to perform an activity such as jumping, the trainer simply has to give the general command being taught to the child ("Fold your hands," or "Show me the car," or "Jump") and then give the imitating command "Do this," and demonstrate the response being asked for. Imitation skills are used to help or prompt a student into making the correct response.

Skills in motor imitation also help a student when he is being taught to imitate sounds; generally once a student understands the "copying game" with movements, he is more apt to copy noises made by a trainer as well as mouth positions. Also a student is generally more apt to imitate with objects before he imitates with body parts--this, however, is not a hard and fast rule, and the student's initial testing results should be consulted to determine the appropriate training order. In some cases, 2b may be trained before 2a if initial testing shows that the student is already imitating with body parts and not with objects.

2a. Motor imitation with objects:

Test: Rather than testing all the 14 different imitative tasks using objects two times each, only four tasks, each representative of others in the group will be tested. If a student can imitate these four tasks, each given two times, then it is assumed that he can also imitate all 14 tasks. The four tasks classes are described below; the last task, generally the hardest of that class, is starred and will be the task to be tested. In parentheses following these tasks is described the minimum correct response needed in order for the student to receive a correct response score.

The attendant says, "Do this," and presents the imitative model (i.e. hitting the table with a toy hammer); then any materials used for the task are pushed in front of the student and the attendant waits a sufficient amount of time before going on to the next task presentation. No prompting or urging is given as in all the tests for each part; if the student can imitate, he will not need help. Each of the four different tasks are presented to the student as described, two times each, and in a mixed up order. Passing score is seven correct imitative responses out of eight (about 90% correct performance.) Scores less than this require training on this part.

1. Hitting Objects
    a. hit xylaphone with mallet
    b. hammer table with toy hammer
    *c. hammer a peg on a toy peg table (hammer must come in contact with at least the top of the peg table while the hammer is held by the child)
2. Lifting and Releasing Objects
    a. put one block into a container
    b. put two blocks into a container

*c. place a single ring on a supported vertical stick (the ring must be lifted from the table and releases so that it falls onto the stick; if the student lifts the ring and releases it but it falls along side the stick due to poor coordination, he may be allowed another try without a second demonstration, and the base of the stick may be held firmly by the examiner after the student approaches the stick with the ring in hand)

3. Lifting and Moving Objects

   a. ring bell

   b. dump one block, already in container, from a container

   c. move car back and forth

   d. lift glass to mouth

   *e. put a hat on one's head (hat must be lifted by student to head and placed in contact with the top or side of his head to be scored as a correct response - it does not have to be balanced on the head without falling or holding on to it)

4. Touching and Pointing to Objects

   a. touch spoon

   b. touch a doll's hair

   *c. point to a chair (index finger, more than one finger, or the entire hand must point in the direction of a nearby chair which is not within touching distance of the student but placed either at the testing table or nearby)

Training: The trainer presents the new behavior to be imitated preceded by the verbal command, "Do this." For example, the trainer may say, "Do this," and touch the doll's hair. If the student responds correctly by touching the object, he is reinforced. If the student does not respond or responds incorrectly, the trainer may assist the student by giving him a physical prompt such as guiding the student's hand toward the object after which he is immediately reinforced. The trainer continues to reinforce each response which is closer and closer to the desired imitative response, gradually withdrawing physical prompts until the student imitates the trainer's pointing to the object without prompts. The trainer then presents this same task in an order mixed with other tasks already known by the student (ring bell, touch a doll's hair, put a block in a cup, etc.)

Generally, it is easier for a student to imitate tasks that make sounds rather than those that are quiet such as ringing a bell, hitting a xylaphone, etc. Therefore, the following easy to difficult teaching order may be used if the student did not get any tasks correct + or partially correct (+) on the initial testing:

1. hit xylaphone with stick
2. pound hammer on table
3. ring bell
4. pound hammer on peg
5. move car
6. put ring on stick
7. touch spoon with hand
8. put one block in a bowl
9. put two blocks in a bowl
10. dump one block out of a bowl
11. touch a doll's hair
12. point to a glass on a table
13. lift a glass to mouth
14. put a hat on head

If the student did get some + or (+) responses on the initial testing, follow the suggestions listed under step 4 on page and proceed to teach any new tasks according to the order above.

2b. Motor imitation with body parts:

Test: Again as in part 2a, only four representative tasks are tested rather than testing all 14 imitation with body part tasks. All tasks trained are listed below in a class order with the last in each class being the hardest of that class and the item to be tested. Following the starred tasks is a description of the minimal responses needed to get a correct response score.

Again, the attendant says, "Do this," and presents the imitative model (i.e. hitting her stomach with her hands). Since no materials are used in this part of the program, the attendant must only wait a sufficient amount of time to allow the student a chance to imitate before going on to the next task. Each of the four tasks are presented two times each in a mixed up order. Passing score is seven correct imitative responses out of eight (approximately 90% correct performance). Scores less than this require training on this part.

1. Hand and Arm Movements
    - a. hit table with both hands
    - b. clap two hands together
    - c. raise both arms up in front of self
    - *d. put both arms straight out horizontally at sides (arms do not have to be extended completely, nor does the angle between extended arm and side have to be 90 degrees)
2. Touching Visible Body Parts
    - a. hit both thighs near the knees with palms of both hands
    - *b. touch stomach with both hands (area above or below stomach may be touched)
3. Touching Body Parts Not Visible
    - a. touch teeth
    - b. touch head with hand
    - *c. touch one's nose (part of the nose must be contacted with finger, palm, or other part of hand or arm)
4. Moving Body Parts Not Visible
    - a. open mouth
    - *b. stick tongue out of mouth (tongue must be slightly extended and visible)

Training: The same training procedure for imitation with objects is used for imitation with body parts. However, it is important that the student be expected to perform the task with his own body parts rather than in part 2a when he used the same objects the trainer used.

Generally it is easier for a student to imitate movements that can be seen as he makes them and that make noises. Therefore, the following suggested teaching order may be used so that instruction proceeds from easy to more difficult as the student is successful.

1. hit table with hand
2. pat stomach
3. pat knee
4. clap hands
5. arm(s) straight out horizontally at side(s)
6. raise one arm vertically
7. touch head
8. touch nose
9. touch teeth
10. open mouth
11. stick out tongue

If a student did get some + or (+) responses in the initial testing for this part, follow the suggestions listed under step 4 on page 10 and proceed to teach any new tasks according to the order above.

3. Vocal Imitation Phase

If the student attempted to imitate any words in the initial testing even with a partially correct response, training would begin with word imitation rather than with 3a (copying the trainer's sound by making any sound--gross vocal) or with 3b (vowel imitation). In this case, the child would automatically pass these first two tests of this phase.

3a. Gross Vocal Imitation (Copying the trainer's sound by making any sound):

Test: The attendant faces the student and says, "Do this, say 'ah.'" The student is expected to respond with some kind of vocalization; whispers and merely opening the mouth in response to the command are counted as approximations or partially correct responses. This command is repeated three times pausing enough time between each for a response from the student. (Emphasis should be placed on the sound "ah" in the command.)

This part is passed if the student makes three sounds following soon after the attendant's command. If the student does not make three correct responses, he should be trained on this early vocal imitation skill.

Training: The student that did not imitate any words or vowels on the initial testing would need to begin with vocal imitation training here. Also, it is important that the student already be able to imitate motor movements and have passed the tests for both 2a and 2b since vocalization builds upon these skills. Generally, vocal imitation is more difficult than motor imitation for a couple reasons: first, it is not possible to assist or prompt a student into making a sound (besides merely opening his mouth for him) as it is possible to physically prompt a student during motor imitation training; second, the act of producing a sound is not as obvious for a student to observe as is moving objects or body parts, and differences between sounds are even more difficult to observe visually and match than are motor movements. For these reasons, a number of training techniques are suggested and if one does not seem to be working with a particular student, the other methods should be tried.

One training procedure to get a student to make any sound when the trainer makes a particular sound involves using his skills in motor imitation with body parts and gradually having him do imitative tasks which are closer and closer to the task of producing a sound. The trainer would present some imitative tasks involving large body movements (hit the table, extend arms horizontally at sides, etc.) proceeding next to imitative tasks that are less visible to him as he performs them (raise hands, pat head, etc.) and then those tasks which involve the face would be presented for him to imitate (touch nose, open mouth, etc.) Finally, a vocalization task is presented. The student would be given the same "Do this," command to cue him to make another imitative response, but the vocal command would also be given at the same time - "Say, 'ah'."

The sound "ah" is used since it is the easiest sound to make and _if_ the student does try to match his sound with the one modeled by the trainer, then it would be easier to do so than would be any single word. (The retarded trainer, using this first procedure, would probably have a number of motor imitation task cards to guide his training sequence; these cards would be followed by a vocal imitation card (picture of a boy opening his mouth with lines indicating sound coming from the open mouth). If the student begins to produce sounds, more vocal imitative cards would follow this first one so that the student could strengthen this correct response.) If the student does not respond by making sounds, the trainer may physically prompt by opening the student's mouth. However, if there is still no sound produced by the student, more short sequences of motor imitative tasks involving the face (touch nose, touch teeth, open mouth, etc.) ending with a vocal imitation task could be used.

At times a student will be able to imitate movements of the mouth perfectly, but still unable to produce a noise in imitation. A number of methods may be tried with these students to get them to imitate sounds. Small cans (metal vegetable or 1-lb. coffee cans) may be held to the mouth by the trainer when giving the "ah" sound in the command "Do this, say 'ah'." The can is handed to the student who may be likely to try and fail a few times before making a sound into the can. The trainer should praise the student's attempts to imitate and, giving the command, show the student again. Also long paper tubes (paper towel tubes) may be used in a similar way to produce a novel sound that a student may be more likely to imitate.

Another technique might involve teaching a series of imitative motor movements which would end with making a sound (i.e. hitting table, standing up, putting hands to mouth and then making a noise). This technique attempts to develop an imitative chain (training the first task, then adding the second task to the first, etc.) and to "sneak" a sound onto the end of the chain of behaviors.

Finally, if the child is making sound but at times other than following the command to do so, another teaching technique might be used by the trainer. The trainer would reinforce the child only when he produced sounds. This procedure would increase the number of sounds the child makes during training sessions and therefore, increase the likelihood that the child would make a sound when the command is later introduced.

3b. Vowel imitation:

Test: The attendant faces the student and presents each imitative vocal model one at a time allowing enough time for the student to respond. The four vowel sounds, "ah" - "ee" - "oh" and "oo" are given in the command form "Say, '_____'." Emphasis is placed on the vowel sound to be imitated when it is presented to the student. Each of these four sounds is presented to the student three times in a mixed up order. In order that the child's imitations be scored correct, they must be easily distinguishable one from the other and fairly close to the modeled vowel sound; however, it is not necessary that the sounds be precise imitations. In order to pass this part, the student must make 11 correct imitations out of 12 possible (about 90% correct performance). If the student's score is less than this, training on these sounds not correctly imitated should be given by the trainer. There is one exception to this rule of training: if a student fails either or both of the first two tests in the vocal imitation phase (3a, gross vocal imitation; 3b vowel imitation) and has many no responses, but is able to correctly imitate some words on the test for 3c single word imitation, then training begins at single word imitation. The other two parts need not be trained as a student's performance of this description would be most likely to imitate whole words. Single word imitation, if already occuring, should be encouraged through training rather than training at the more elementary levels of gross and vowel imitation. These two tests are then regarded as automatically passed.

Training: Training a student to produce closer and closer imitations of a vowel or word is not an easy task even for a trained speech therapist; it involves remembering his best performance and always trying to reinforce him for improving his imitation while not reinforcing a poorer imitation. Therefore, to do this kind of training with a retarded trainer will probably mean slower progress. Hopefully, if the trainer's model of the vowel is accurate, just the mere repetition of having the student hear the correct pronunciation and then try to imitate will improve his imitation. This reasoning applies to word and vowel imitation as well.

(To make the task presentation order easier for the retarded trainer, photographs of the mouth placement for the vowel sounds will be used in place of hand-drawn task cards. In addition, a tape recorded will be used to provide the auditory cue to the trainer for each sound that is to be presented to the student. The tape will be coordinated with the photograph training cards so that after turning the card to the next task picture, the trainer will be taught to push the forward button on the recorder to hear what sound he must ask the student to make. The stop button would then be pushed and the vowel sound presented to the student by the trainer. If a trainer can read or is able to pick up which sound is represented by which photograph, then the tape recorder would be discontinued. Generally trainers are able to learn which picture represents which vowel sound.)

3c. Single word imitation

Test: The attendant faces the student and presents each imitative vocal model allowing enough time for the student to respond before presenting the next word. Twenty-two words are trained and, therefore, each is tested. Each is presented two times in a mixed up order. Emphasis is placed on the word to be imitated in the standard command form, "Say, '_____'." The following 22 words are tested:

1. hat
2. baby
3. comb
4. car
5. shoe
6. key
7. spoon
8. ball
9. floor
10. box
11. table
12. chair
13. nose
14. eye
15. hair
16. teeth
17. gone
18. mine
19. jump
20. march
21. sit
22. eat

Correct imitations need not be precise imitations but must be understandable by the average careful listener. The student must receive a score of 40 correct word imitations out of 44 possible (90% correct performance) in order to pass this part of the program. Training is limited to those words not responded to, incorrectly imitated or only partially imitated.

Training: (The retarded trainer presents those words missed by the student during initial testing in an order controlled by the arrangement of the word pictures. He should be instructed by the supervising attendant to reinforce the student when he says the word the same as or a little better than his usual pronunciation of it. Also the retarded trainer should be shown how to place emphasis on the word to be imitated.) Generally single syllable words (ball, key, etc) are more easily imitated than two or three syllable words; training would then begin with single syllable words and proceed to two syllable words as the student is successful. Direct training by an attendant proceeds according to the suggestions already listed. Although no pictures are needed to guide training order the attendent will want a list of words arranged in the training order for the student nearby for guidance.

3d. Phrase imitation:

Test: The attendant faces the student and presents each of the imitative phrase models one at a time allowing enough time for the student to respond before presenting the next. The attendant should choose any 10 phrases from the many possible in the program and present them two times each in a mixed up order. As in the other parts involving a vocal response, correct responses are those in all the words in the phrase which are understandable by the average careful listener. The attendant should be sure to use some three-word phrases (about 3 or 4) making the rest two-word phrases. Examples of two and three-word phrases taken from the program are as follows: baby's hair, my eye, ball car, hat floor, comb on table, shoe and baby.

There is no passing score for this phase as the number of phrases are many and training can always be used to improve the imitations the student already has. Also sentences and phrases of increasing length can be imitated. However, testing can be used to determine which phrases are able to be omitted from training and which phrases still need to be worked on.

Training: The trainer presents those phrases missed by the student during initial testing and any others needed later in the program which the student is unable to imitate correctly. Generally a two-word phrase is easier to imitate than a three-word phrase so any training should probably begin with two-word phrases and proceed to three-word phrases as the student is successful. The student, as in all other parts of the MLAP, is reinforced for each small improvement made in his imitation of the phrases.

4. Basic Receptive Phase: Understanding Single Words that Label

The purpose of this phase is to teach the student to understand a basic vocabulary consisting of names of common objects, names of room parts, names of body parts, names of activities and names of objects not in the student's view. The student is not expected to vocalize in this phase but only point to, touch or get objects or body parts or perform an activity.

4a. Touching objects:

Test: The attendant puts all eight objects on the table in front of the student. The general command used is "Show me the ____________," allowing enough time in between commands for the student to respond. All eight objects are requested two times each in a mixed up order. If the student picks up the object, it should be replaced on the table so that all eight objects are showing at all times. Passing score is 15 correct out of the 16 possible (about 90% correct performance). If a student scores less than this, training on those objects missed should be given by the trainer; otherwise a student passing this test may proceed on to training in other parts (see page 36).

Training: In this part a student will learn slowly to connect a label (ball, baby, key, hat, car, shoe, spoon, and comb) spoken by the trainer with the object it labels. There are four main steps in this training of understanding the words that label objects; these are listed in the easy to hard order below:

1. no-choice: student must show trainer a single object placed in front of him
2. two-choice: student must show trainer one of two objects placed in front on him
3. three-choice: student must show trainer one of three objects placed in front of him
4. 8-choice: student must show trainer one object from a choice of all 8 objects placed in front of him

If on the initial testing, the student either did not point to objects following the command or pointed but did not get any correct responses, the first training step is taken. The trainer would begin by placing a single object in front of the student with the remaining 7 objects back away from the student. The command would be given "Show me the _________ (name of object)," asking the student to reach and touch the single object in front of him. If the student is not able to do this, he should be prompted by the trainer in either of two ways: lifting his hand and making him touch the object or having the trainer touch the object and give the imitative command, "Do this," as he touches it. As in other instances, either prompted correct response would be reinforced by the trainer with enthusiasm and a token or food (depending on the student).

After the student is able to touch the objects placed before him following a command to "Show me the _________," he is ready for the second step in training. This step consists of having him make a choice between two objects when asked to show the trainer one of them. Much prompting may be needed at first, but this assistance should be faded out as soon as possible so that the student learns to make the choice by himself rather than waiting for the trainer to give help. Another way to speed up learning is to limit the number of objects worked on to those most familiar to the student depending on initial or intermediate testing results. These objects worked on by the trainer should be presented at least two or three times in a row during this early learning so that repetition might allow the student to make the same correct response to the same command.

Another step in training includes having the student choose the asked-for object from three objects placed in front of him. It is important during this three-choice step, as well as during the two and eight-choice steps, that the objects for a particular task (i.e. shoe ball key) not always be placed in the same visible order before the student. If the order is changed, every trial (i.e. trial 1. shoe ball key; trial 2. ball key shoe; trial 3. shoe key ball) or at least once in three trials rather than remaining fixed, then the student is forced to look at all the objects and learn to discriminate between them rather than to learn merely to reach in a particular direction for the correct choice. Therefore, when the student is getting the correct choice at a 2 or 3-choice level with objects presented in a changing order each or every other trial (trial 1. ball hat; trial 2. hat ball) then it is time for the trainer to present this particular object at the next difficult training step (go from two-choice to three-choice, or go from three-choice to 8-choice). At this time the student's error rate will probably increase and some prompting by the trainer might be needed.

The last step in training this part requires that the student learn to show the trainer an asked for object when all 8 objects are placed before him. Again when going from an easier training step to a more difficult one, the student may need some initial prompting to make the correct choice.

A number of training hints should be remembered when training this part (some of these hints are also applicable to the other parts of the program). First, the student's hand should be on the table or in his lap until the entire command is given at which time he may reach to make a choice. If this is a problem, training should be directed immediately towards establishing this hand-in-lap behavior. This can be done by holding the student's hands until the command is finished and then letting go and, if needed, pushing his hands towards the objects. Slowly the trainer should fade out this need to physically restrain the student's hands as the command is being given. Second, incorrect choices should be quickly made correct by the trainer by repeating the command a number of times as he prompts the correct response from the student (points to or moves student's hands to correct object). Third, it is particularly important that the student watch the trainer as he gives the command ("Show me the BALL") and as he gives the feedback following the student's response ("Good, that's the BALL!"). This will give the student more experience in hearing the word and seeing the object as it is labeled (the object being labeled is held or touched by the student or trainer). Trainers should not give commands or feedback until the student is looking at them and they are looking at the student. (Retarded trainers often tend to look at their training cards as they give part or all of the command; this should be quickly discouraged.) Fourth, the importance of immediate praise and reinforcement to the student cannot be overemphasized. As soon as the student makes the correct choice (with or without assistance) praise should be quickly given, followed by labeling feedback ("That's the KEY") and a token or food and perhaps a pat. Finally, the training objects should periodically be exchanged with different objects from other training boxes so that a student can learn to generalize the labels being learned to a variety of objects all having the same label (i.e. a blue, small car and a red and and white, larger car are both called "car"). Again this change may make the task harder for the student at first and assistance by the trainer might be needed in order for the correct choice to be made.

Intermediate tests and careful observations during training will help determine throughout all these steps which objects are known by the student at a certain training step. For example, if a student is continuously able to show the trainer the key in a 2-choice situation where the trainer changes position of the key every trial, then that trainer should begin training "key" in a three-choice situation.

4b. Pointing to room parts:

Test: All four room parts should be within view and touching distance of the student: box, chair (preferably an unoccupied one), table, and floor. The box may be placed on the table within reach of the student. For each of the 8 testing trials, the attendant faces the student and says, "Show me the ________," and waits a reasonable amount of time for the student to respond. Emphasis should be placed on the room part to be pointed to. The first object touched or pointed to (purposefully) by the student is the response that is counted and scored (i.e. merely folding hands on the table would not be scored as a correct response for "Show me the table.") As in 4a, the student should be discouraged from making other choices after making a first choice; any choices beyond the first purposeful choice are ignored in the scoring, although the attendants may make note of these choices if the occurance is often or is the correct choice. The student must get 7 correct responses out of the 8 possible in order to pass this test. Any scores less than 7 require training in this part.

Training: In this part the student will slowly learn to connect a label (box, table, chair, floor) spoken by the trainer, to the room part that is referred to. The initial results should again assist in arranging the training tasks to be taught first. The command used in training is "Show me the ________ (room part)." Also, feedback is given by the trainer following every correct response, made with or without assistance ("Good, that's the name of room part."). In the beginning, it is probably best to have the student touch rather than point to the room parts commanded. This will not allow the student to misunderstand which room parts goes with which words as could happen if vague pointing responses are taught him. During training when prompting is needed to get the student to make the correct response, a variety of methods can be used by the trainer:

1. trainer repeats command when student does not respond or responds incorrectly and

2. points to or touches the room part saying, "Do this," thereby getting the child to imitate the correct response.
3. takes the student's hand towards the correct room part
4. the trainer merely looks closely at the correct choice and perhaps pushes the child's arm behind the elbow to get the touching response started.

Again it is important that these prompts be slowly faded as the student is successful in making the correct response so that the student does more and more of the response on his own.

The room parts may, as suggested for the objects in part 4a, be exchanged for others so as to allow the student to learn to apply the label to a variety of room parts rather than to specific ones. This can be done by changing training rooms periodically if convenient; or other chairs, tables and boxes could be used in the same training room. If it is possible, a third chair should be used initially when teaching the student to understand the word "chair." This might prevent him from thinking "chair" referred only to the arm of his or the trainer's chair since he would be able to see the "whole chair." Many of the training suggestions offered in part 4a are also relevant to training in 4b.

4c. Pointing to body parts:

Test: The attendant asks the student to show her his nose, eyes, teeth, and hair, one at a time in a mixed up order, giving a command for each body part two times. Each command will include the student's name rather than the possessive pronoun "your"; so the command takes the general form: "Show me Tommy's nose." Emphasis should be placed on the body part to be touched. Since the body parts are quite close together, it is important to watch for and score the student's first response rather than a later response. Also the student must touch his own body part to get a correct response; if he touches the correct body part but on the attendant, he is then scored a partially correct response. In order to pass this test, the student must make 7 correct responses out of the 8 possible, (about 90% correct performance). If the student makes less than 7 correct responses, training on this part is needed.

Training: In this part the student will slowly learn to connect a label (teeth, eye, nose and hair) spoken by the trainer, to the body part on himself that it refers to. The initial testing results should be consulted to assist in arranging the training tasks to be taught first by the trainer. In the beginning, it might help the student with no correct responses in the initial test to use a mirror as he tries to touch the body part commanded as well as to see the trainer touch the trainer's body part. Therefore, the trainer would use the general command, "Show me student's name name of body part." Praise, food or token and feedback ("That's your nose") would be given is the student makes a correct response. While giving feedback the trainer should touch the commanded body part on his own face as well as to give the student some visual feedback since he can only feel rather than see his own body part. If the student does not make the correct response or does not make any response, then the trainer should repeat the command as he prompts the student into making the correct response in one of the following ways:

1. touching his own body part and saying, "Do this," requiring the student to imitate this movement
2. lifting the student's hand to his own body part and perhaps using a mirror allowing the student to see what he is touching.

The prompt is then followed by immediate praise, feedback and reinforcement (food or token). Prompts should be slowly faded out as the student is successful requiring that he make more and more of the response by himself. Many of the training suggestions offered in part 4a are also useful in training this part.

*4d. Performing activities:

Test: Prior to the beginning of the test, the attendant should place on the testing table a ball and a few pieces of candy or soft cookie. The entire test is given as both the attendant and student are standing so as to avoid giving a clue by getting the student up just before the commands that have to be done in the standing position (sit, march and jump). Whenever the student sits, he should be asked and helped, if needed, to stand back up until the test is finished. For the marching response to be correct, the student must lift both feet at least once in an alternating manner; for the jump response to be correct the student must have at least one foot leave the floor although not in a hopping manner; for the eating response to be correct the student must pick up, on his own initiative, and at least take to his mouth a bit of the food on the table; both the ball responses must be definitely one of the two actions--either a bounce or a roll but not both. If the student performs the wrong activity, he is scored a - for an incorrect response; if he does nothing, he is scored 0 or NR for no response. Approximations or partially correct responses (partial jump or hop for "jump") are also given, (+). Passing score on this part is 11 correct responses out of 12 possible. Scores less than 11 require training.

Training: It is recommended that training sessions also be done as the trainer and student are standing in front of the table. The initial task order to be used by the trainer should be determined by inspecting the initial testing results. In this part, the student will slowly learn to

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*Refer to Appendix G.

connect a single word (eat, jump, march, sit) or a phrase (roll the ball and bounce the ball) spoken by the trainer, to an action which he learns to perform. The trainer uses the general command consisting of the single action word or the phrase, i.e. "Jump," "Roll the ball." Praise, reinforcement (token or food) as well as feedback would be given to the student immediately upon performing the correct activity. Feedback would consist of stating what the student just did: "Good, you jumped" or as he is doing it, "Good, you are jumping," or even, "Good, that's jumping," for whatever feedback used, the same form should be used repeatedly.

If the student does not perform any activity or performs the incorrect activity, the trainer should repeat the command and add, "Do this," as he demonstrates the activity for the student to imitate. If the student does not imitate, he must be prompted to do so; if he does imitate the trainer, he should be praised and given feedback as above. Any prompting should slowly be faded out by the trainer so that the student learns to perform the activity when commanded to without any assistance from the trainer.

In testing and especially in training, adjustments in procedure and responses taught may be necessary if either student or retarded trainer is physically handicapped. (It could be possible, if the retarded trainer is unable to demonstrate the activities march, jump and sit, to use another retarded trainer to train the student in these activities.) If a student is unable to perform these three activities, they may be omitted or he may be taught how to move his feet for "march" and "jump". Many of the training suggestions in part 4a may also be used for this part.

4e. Finding an object (not visible)

Test: This test is omitted if the student did not get any correct responses on part 4a. Prior to testing, the attendant spreads all 8 objects (ball, key, baby, shoe, hat, spoon, car, comb) on a chair or table behind a screen out of the student's direct view. Then the student is shown these objects behind the screen. After returning to the testing table, the attendant asks him to go and get each of the objects, one at a time, and bring them to her. The general command, "Go get the ________," is used asking for each object two times in a mixed up order. After each object is brought to the attendant by the student, it should be returned to the screened table so there are always 8 objects to choose from.

For the first or second trial, the attendant, after giving the command, may point to the place where the objects are to indicate where the student is expected to go. If the student still does not seem to understand the command, the command may be repeated and he may, for the first 2 trials, be pushed towards the screened table and encouraged to give an object to the attendant by having her hand held extended towards him. However, after the second trial no more help or repetition of commands is allowed. In order to pass this test, the student must bring the attendant 15 of the 16 objects asked for. If the student's score is less than this, training should be given.

If the student is physically handicapped, adjustments in the arrangement of the screened table can be made so that the same activity is still possible. For example, a handicapped student could be expected to hear the command as the objects lying in front of him on the table are covered and, after a few seconds, the cover could be removed allowing the same delay that occurs if the student must walk behind a screen to get the object.

Training: In this part the student will build on his labeling skills learned in part 4a and learn to remember verbal commands given to him so he is able to locate an object not immediately present when the command is given. This task involves memory and generally is much harder than the task trained in part 4a even though all the same objects are used. Therefore, a student is not trained on this part until he is able to pass part 4a. Training includes showing the student where the hidden objects are located prior to each training session. The trainer uses the general command "Go get the ___________," and initially extends his hand to indicate that an object must be brought to him. Also, as in testing, the student, during the early training sessions, can be directed to the screened table by having the trainer point if the student does not immediately go towards the table by himself. All objects brought to the trainer by the student, as in testing, should be returned to the screened table following each trial. However, during early training, a variety of procedures may be used to make the initial memory task easier for the student and to prompt the correct response:

1. The trainer may begin with only one or more objects hidden so that the student has less chance of making an error; other objects would be added as the student is successful.
2. The trainer may give the command more than once so the student be required to remember over a shorter period of time what he is to go and get; the trainer could give the command while the student is at the table with him and again when the student reaches the hidden objects behind the screen.
3. The trainer may slowly increase the distance between the student and the hidden objects requiring more and more memory; at first, the second table or a chair holding the objects would be just beside the training table and not screened; later it would be moved farther away and finally a screen could be used to cover it from direct view.

It is desirable to let the student make as many correct responses as possible by using prompting when needed as mentioned above. Then he is successful, the task may be made more and more difficult until he is able to perform without any assistance, extra commands, and with all 8 objects hidden.

(As mentioned in the test for this part, adjustments may need to be made if either a retarded trainer or a student is physically handicapped. If the retarded trainer is in a wheelchair for example, the hidden objects might be just behind him within his reach and separated by a plastic or cloth screen through which he can reach to return the objects.)

As in most parts being trained, vocal feedback should be provided by the trainer as well as immediate praise ("Good, that's the COMB.") Also it is very important to remember that the command must be given to the student when he is *unable* to see any of the objects so that he does learn to remember and will be able to pass the final testing which is given in the same manner. Additional suggestions offered in part 4a may be of use in training this part.

*5. Receptive Expansion Phase: Understanding Two Words That Label:

The purpose of this phase is to build on and expand the understanding skills developed in phase 4.

*5a. Giving the trainer two objects:

Test: The attendant places all the 8 objects on the table in front of the student (ball, key, comb, car, hat, spoon, shoe, baby). She then gives, one at a time, the commands to locate ten pairs of objects (since there are many possible pairs, any ten are randomly selected.) The command used is, "Give me the _______ and ________," as the attendant extends both hands, upward, towards the student to indicate that something should be given to her. Emphasis should be placed on the two objects asked for. After each trial object's handed to the attendant by the student are replaced on the table.

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*Refer to Appendix G.

If the student hands one of the two asked-for objects, the response is partially correct; if both objects handed are incorrect, the response is incorrect; if no objects are indicated, the student is given 0 or NR for no response. In order to pass the student must make 9 correct responses out of 10. If the student scores less than 9 correct responses then training should be given on this part.

Training: In this part the student is taught to give the trainer two rather than merely one object. This concept of "and-ness" is a difficult one to teach but depends upon the skills learned in part 4a and part 4e since it involves not only recognition of labels but also memory. Often a child may score a number of partially correct responses on the initial testing by giving the attendant one of the two objects asked for--generally, this being the last object named. This common error points out the memory factor involved in this task.

A number of different training procedures may be used by the trainer to slowly shape this skill in the student. If one does not seem to be successful, another could be substituted:

1. Begin by placing all the 8 objects on the table in front of the student and using the double command: "Give me the BALL," and waiting for the student to put the ball in one outstretched hand, then adding the rest of the command, "and the SHOE." (or "Give me the SHOE" if the first does not get the student to respond correctly.) Each of the two correct responses would be praised and feedback provided after the second response: "Good, that's the BALL and the SHOE." If any mistakes are made on these "half" commands, prompts should be given and slowly faded and training at this level should continue until no error is made by the student. At this time the command could be given faster so the first half is given and the second half ("and the SHOE") is given as soon as the student touches the first asked-for object. Finally, the student is trained by giving the command for both objects without allowing extra time to respond midway thru the command: "Give me the BALL and the SHOE."

2. Another technique begins by placing only two objects on the table in front of the student. When the student responds correctly to both combinations of these objects (shoe and ball, ball and shoe), then a third object may be added. When the student responds to all combinations of these objects, another object is added; this procedure is continued until all 8 objects are present during training. The command for this training procedure is the double command, "Give me the HAT and the COMB."

(For the retarded trainer, the training cards may be arranged in a repeating order so the same pair of objects is asked for two or three times in a row during initial training.) However, it is important that the student be trained on enough pairs of objects so he is able to correctly locate and give the trainer any pair rather than only specific pairs of objects.

*5b. Putting an object on a room part:

Test: The attendant places all 8 objects on the table in front of the student and a box is also available within reach on that table. She then gives, one at a time, the 10 commands to place one of the 8 objects on one of the 4 room parts. Since there are many possible combinations of objects and room parts, any ten are randomly thought up for the test items rather than using only those that are trained. Emphasis is placed on the key words in the command, "Put the KEY on the CHAIR." After each trial the objects are returned to the table in front of the student. In order to pass the test for this part, the student must make 9 correct responses out of ten possible. If only one of the two key words are responded to correctly (either the object is correctly located or the room part correctly chosen) then the response is scored as a partially correct response or an approximation. All other responses are scored as incorrect or no response. If the student scores less than 9 correct responses, then training on this part should be given.

*Refer to Appendix G.

Training: In this part the student learns to combine two skills already mastered separately in the 4th phase: to move one object in relation to a room part. If the student's initial testing seems to indicate that putting one object in a particular place is easier than others, then the training should begin with these easier responses. Otherwise, a number of training procedures involving different kinds of prompts may be used to train this skill: if one seems to be unsuccessful, others should be tried:

1. The trainer could ask the student to place the same object in all the four different places ("Put the ball on the chair"; "Put the ball on the floor"; "Put the ball in the box"; and "Put the ball on the table.") Gradually all objects would be added until the student responds correctly to any combination given in this four-command sequence. Then the object and room parts would be alternated rather than given in this regular fashion (i.e., "Put the hat on the floor"; "Put the comb in the box"; "Put the shoe on the table"; etc.)

2. The same training approach could be used but the room part would be kept constant and the object varied ("Put the ball on the chair"; "Put the hat on the chair"; "Put the shoe in the chair"; etc.) Also it would be necessary as in 1. above to introduce other room parts and finally to mix up the combinations.

3. A series of prompts provided for each task by the trainer could be used to make the task initially easier for the student:

   a. "Show me the ball." (Student points to ball; trainer quickly praises)

   b. "Show me the box." (Student points to box; trainer quickly praises)

   c. "Put the ball in the box." (Trainer demonstrates; student watches)

   d. "Put the ball in the box." (Student puts the ball in the box; trainer provides praise; token or food and feedback, "The ball is in the box.")

These prompts are faded slowly as the student is successful so that the student does more and more of the tasks without assistance.

The training tasks may be arranged in a repeating order so that the same command is given two or three times in a row; this allows the student a chance to perform the same task a number of times consecutively and perhaps with less assistance on the second and third time. However, it is important that the student be trained on enough combinations so that he will be able to put any of the 8 objects on any of the 4 room parts. Generally, it is most difficult for the student to learn to place objects already on the table, to the command, "Put the _________ on the table." This room part combination might proceed slower than the others.

*5c. Pointing to body parts: Possession -- student's or baby's:

Test: The examiner places a large doll on the table in reach of the student (the doll must have visible teeth and hair). She then gives the commands in the general form of either: "Show me the baby's _________.", or "Show me Bobby's _________.", using the student's name when giving the command if the second form. Sixteen commands are given presenting all the body parts, two times each in a mixed-up order. It is especially important not to give subtle clues to the student being tested by looking at the doll when commands referring to the baby's body parts are given. In order to pass the test for this part, the student must get 15 correct responses out of 16 possible. A score less than 15 requires training for this part. If the student touches the correct body part but the wrong possessor or touches the correct possessor but the wrong body part, he is given a partially correct response; all other responses are scored as incorrect or no response.

Training: In this part the student learns to discriminate possession or "whose" body part is being referred to. The prerequisite skills of touching body parts on himself and touching the doll ("baby") have already been learned in 4c and 4a respectively. A number of training procedures

*Refer to Appendix G.

involving different kinds of prompts make initial training easier. These may be used by the trainer; if one seems to be unsuccessful, others should be tried:

1. The trainer could begin by asking the student to touch each of his body parts as trained earlier in part 4c; next, the doll could be pushed closer to the student on the table and the baby's body part commands could all be given one at a time. Finally, training could proceed to mix the commands in a gradual manner (i.e., "Show me Tommy's nose"; "Show me Tommy's eye"; "Show me the BABY'S nose"; "Show me the BABY'S eye".) giving a prompt of pointing to the doll or to the child as the command form is changed. Finally, the child would be expected to learn to follow the commands in a mixed-up order, without prompts.

2. A series of prompts could be provided for each command by the trainer to make the task initially easier:

    a. "Show me the Baby." (Student points to the doll; trainer gives quick praise.)

    b. "Show me the BABY'S nose." (Trainer demonstrates and touches the part called for; student watches.)

    c. "Show me the BABY'S nose." (Student points to the doll's nose; trainer provides praise, token or food and feedback; "That's the BABY'S nose.")

The same series of prompts could be used to teach the student to learn his own name (i.e. "Show me Tommy"; and body parts.) As the student is successful, the prompts are slowly faded expecting the student to do more and more of the task by himself, while giving the commands in a mixed order (baby's and student's body parts).

The training tasks may be arranged in a repeating order so that the same command is given two or three times in a row; this allows the student to perform the same task a number of times consecutively and perhaps with less assistance on the second and third time.

If the student has difficulty with fine motor control, some adjustments might have to be made: a larger doll might have to be used; a better, single finger pointing response might have to be taught; the response requirements might have to be less strict so that the initial uncoordinated movements approaching the body part of the doll or the student are not counted, but the final response, held longer by the student, is the response that is counted.

*5d. Finding two objects (not visible):

Test: The attendant uses the same procedure as is used to test part 4e (refer to page 65), except the command given asks for two objects rather than only one. The command is "Go get the _________ and the _________," with emphasis placed on the two key words. Ten pairs of objects are asked for one at a time. Since many different pairs are possible, any ten are selected and tested. In order to pass this part, the student must make 9 correct responses out of the 10 possible; if the student receives a score of less than 9 correct responses, then training should be given on this part. Responses of one correct object out of the two are scored as partially correct responses; all other responses are scored as incorrect or no response.

Training: Successful learning in this part depends on the student having already passed the tests for part 4e and 5a. Training suggestions given in part 4e and 5a can also be used to train the student to find two objects hidden from view--a task involving even more memory than either 4e or 5a. It is also necessary to train a large variety of pairs of objects so that the student learns to go and get any possible pair of objects hidden from his view.

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*Refer to Appendix G.

6. Basic Expressive Phase: Using Single Words to Label:

In this phase of the program, the student builds upon his basic receptive skills learned in phase 4 and is trained to say the vocal label for the words he already understands (i.e., he can already touch or point to objects and perform activities he heard named).

6a. Naming objects:

Test: The attendant does not have all objects in front of the student, but rather to her side. Each object is presented one at a time and held up for the student to see. The general question asked is, "What is this?" as the attendant points to the object asked for. Enough time is allowed for the child to respond before going on to the next item. All 8 objects are tested in this manner, two times each, in a mixed up order. In order to pass this test, the student must give the correct label for 15 of the 16 objects in a vocal form that would be understandable to an average careful listener.

Since judgments as to the intelligibility of the word spoken by the student are not easy judgments, the attendant must test in a rather quiet area where she can give her full attention to listening. Approximate responses are those which seem to be the correct label for the object but are difficult to understand; it is not necessary that correct responses be perfectly articulated words--but rather intelligible to a careful listener. Incorrect responses include the wrong label or labels not understandable. No responses are given when the student says nothing. These rules are used to judge all vocal responses in both the expressive phases (6 and 7).

Training: In this part the student learns to label or name all eight objects (ball, key, baby, hat, shoe, spoon, comb, car) worked with already in part 4a. (showing trainer an object.) It is necessary that the student have passed 4a and thereby understand what names refer to what objects before any training is given in naming the objects (6a). Also, since all the prompts for training this part consists of getting the student to imitate the word that labels a particular object, that student must be able to imitate words (3c.); however, it is possible to work on getting a student to name objects (6a.) and, at the same time, still work on getting the student to improve his single words through word imitation training (3c.). That is, a student does not have to have passed 3c. before being trained in any parts of phase 6 or 7. Training in these three phases can occur simultaneously.

Training the student to name objects will generally proceed by the following procedure. Task training order is determined from initial test results. The trainer has all 8 objects on the table near him and out of the student's reach. He picks up the object and holds it for the student to see as he points to it and asks, "What is this?" It the student gives the correct answer in an understandable, though not necessarily perfect word response, the trainer praises the student, gives him feedback ("That's the name of the object,") as he points to the object or holds it up and a token or food. If the student does not answer or gives an incorrect or very difficult to understand answer, the trainer may prompt the correct answer with an imitative vocal prompt by saying, "Say name of object." Again, if the student imitates correctly, he is given praise, feedback and token or food.

Generally, this procedure is used to get the student to learn what to name each object. However, it is important to begin to fade out the prompting assistance by the trainer ("Say ball,") so the student begins to make the correct response by himself. (The retarded trainer can be reminded to leave out the prompt sometimes and wait longer for the student to make the response by himself.) If the student remembers the correct name of the object, this is heavily praised and then the prompt for that word can be omitted on the next trial asking for the name of that object. Another way to more slowly fade out the vocal prompt is to first drop the word "Say" in the prompt "Say ball," and then, as the student is successful, to drop all but the first sound in the word or the mouth formation for saying that word; in the example ("Say ball," the trainer would first merely give the prompt "Ball," and then fade that prompt even further to "Baw," or merely forming a "Baw" sound with his lips.

If the student does not name the object, and does not imitate the vocal prompt, the trainer may be told to go back to a series of motor imitation tasks to get the student in an imitating pattern so he will be more apt to imitate the word. This series would lead up to vocal word imitation. The following series is an example which could be lengthened or shortened depending on the student:

1. hit table with hand
2. pat stomach with both hands
3. raise both hands
4. hit head with both hands
5. touch nose
6. touch teeth
7. open mouth
8. stick out tongue
9. ("Do this, say 'AH'") imitate the 'ah' vowel sound
10. ("Say name of object being trained,") imitate word being
11. hold up object, point to it, ask "What is this"...Say BALL." get student to imitate name of object immediately after trainer asks the "What is this?" question.

Since these series help the student to begin imitating when he is not imitating, they must be thought of as assistance or prompts to get the student to make the correct response. Therefore, the trainer would fade out the series of motor imitation tasks as soon as the student begins imitating the vocal word prompts (Trainer: "What is this...say BALL.") Then, as the student begins to successfully imitate the vocal prompts as illustrated in the prior sentence, the trainer should fade out these prompts so the student is given the chance to perform without assistance and thereby learn the names of the objects (See above paragraph). Also the objects should be exchanged for other objects differing in size and color so that the student learns that each name may be used with a variety of slightly different looking objects (i.e. "Shoe" is used to name a white, tennis shoe as well as a black leather shoe.)

The trainer need not begin with all 8 objects at one time. The number of many object names to be trained at one time should be determined by examining the student's initial testing results (or by giving a second initial test on this part to update the first initial testing which may have been done too much earlier than the present training.) If the student got no correct responses or even partially correct responses, then it might be better to begin training with a smaller number of objects and add more as the student learns these first few. Also the student might be encouraged to hold or touch the object as the question is asked and/or as feedback is given. This procedure would allow the student to connect more clues with the word name for that object he is trying to learn (clues such as size, feel, weight, close-up look,etc.) If the student had some correct responses on both trials for the same object on the initial testing (each object is tested two times) then these object names could either be asked for review training or could be used to begin training sessions with success.

6b. Naming room parts:

Test: The attendant places the box on the testing table and, if possible, has an extra chair in view of the student. As the student is watching, each of the four room parts are touched or closely pointed to (box, table, chair, floor) one at a time and the question asked, "What is this?" Each room part is asked about two times each in a mixed order with the other room parts. A correct response must be the appropriate naming word for that object and must be spoken in an intelligible way though not necessarily in a perfectly articulate way--the word should be understandable to an average careful listener in order to be scored as correct. Other word responses are judged to be partially correct if they are close to the correct label but not understandable; incorrect, if they are the wrong label or are grossly unintelligible; and no response, if nothing is said. The student must make 7 correct responses out of the 8 in order to pass this test; scores less than 7 require training for this part.

Training: Training the student to name the four room parts (box, table, chair, floor) will follow the same general procedure as outlined in the training section of part 6a. Vocal imitative prompting ("Say 'name of object'") is the main means of getting the student to name a room part which he incorrectly names or does not respond to when the trainer points to it (box, chair, floor or table) and says "What is this?"

Also feedback should be given by the trainer following each correct response ("That's the TABLE.") along with praise, and token or food. Also the suggestions for imitative vocal prompts given on pages 76 and 77 apply here as well. And finally the suggestions to get a student to begin imitating, if he does not readily imitate when the trainer prompts him to are found on page 77 and also apply here.

The attendant might want to change the box and chair for other boxes and chairs so the student learns that these labels apply to a variety of objects rather than only to a specific one. The table and floor may be changed also if use of another table and training room is possible. These changes might be made after the student is beginning to name the room parts correctly.

The student just beginning to learn the names of room parts might be encouraged to touch the room part after the trainer does when asking the question, as well as during the time the feedback is given; this procedure would allow the student to connect more clues with the word name for that room part he is trying to learn (clues such as feel, position in relation to where he is sitting, etc.)

6c. Naming body parts:

Test: The attendant needs no testing materials for this part but seats herself at the testing table across from the student. The attendant points to her own body part to be questioned as well as touches the same body part on the student and asks the question, "What is this?" Each of the four body parts (eye, nose, teeth, hair) are asked about two times in a mixed order. In order for the response to be scored as correct, the correct words must be spoken by the student in a way which would be intelligible to an average careful listener - though not necessarily in a perfect form. For further explanation of scoring, see page 75. Passing score is 7 correct responses out of 8 possible; scores less than 7 require training on this part.

Training: Training the student to name the four body parts (eye, nose, hair and teeth) will use the same general procedure and suggestions for prompting and fading as outlined in the training section of part 6a. In addition to these comments, a few suggestions specific to this part should be mentioned. During initial training, the trainer should point to his own body part as well as touching the student's when asking "What is this?" This double pointing procedure may be changed to pointing only to the trainer's body part as the student is successful. The double pointing allows the student to feel his own body part being touched even though he cannot see it on himself - thereby giving the student more clues about the word for that particular body part. (Many students will, on their own, imitate the trainer and touch their own body part as the question is asked; in this case, the trainer need not also touch the student's body part.) As in part 4e, pointing to body parts, a mirror could be used so the student sees his body part in addition to the double pointing procedure. The trainer should touch his eye to its outside rather than directly on the eye or the closed lid. Also the trainer should show his teeth as he touches them so the student will not learn that the word "teeth" names the lips or the mouth.

Feedback given to the student by the trainer following every correct response should be in the form "That's your name of body part."

6d. Naming activities:

Test: The attendant places a ball and some small candies or pieces or cookie on the table, out of the student's reach. The attendant stands up as she gives this test. The attendant then performs the various six activities one at a time as the student watches, following each performance with the question, "What did I do?" and allowing enough time between performances for the student to respond. The attendant should perform the activity for a few seconds so the student observes it (especially important with the two similar activities i.e. roll the ball, bounce the ball). Each of the six activities (roll the ball, bounce the ball, sit, jump, march and eat) are demonstrated for the student two times each in a mixed up order. The student should be able to observe the feet of the attendant when the march and jump activities are demonstrated. The single words "roll" and "bounce" are scored correct responses for the activities of rolling and bouncing the ball respectively. In order to pass this test, the student must correctly label 11 of the 12 activities in a way which would be intelligible to an average careful listener - though not necessarily in a perfect form. Although the grammatically correct answer to the question "what did I do?" should be a past form of the very (i.e. "rolled the ball" or "ate") this past form is not expected to be given to be scored as a correct response. The present verb forms used in training 4d, (performing activities) are correct (i.e. "roll the ball" and "eat"). All other responses are judged to be partially correct (seems to be correct name, but not intelligible), incorrect (wrong name or totally unintelligible) or no response (student says nothing). If the student scores less than 11 correct responses, training is required.

Training: Training the student to learn to name the six activities (eat, roll the ball, bounce the ball, sit, jump and march) will follow the same general procedure and suggestions for prompting and fading as outlined in the training section for part 6a. In addition to these comments, a few suggestions specific to this part should be mentioned. The trainer should use the general command, "What did I do?" immediately following his demonstration. He should use the imitative vocal prompt of "Say name of activity," if the student does not name or incorrectly names the activity. The ball should be rolled and bounced on the training table as was done in training 4d. (performing activities); this procedure saves time in training and allows the student close observation of the activity. Marching, jumping, and eating should be performed by the trainer in an exaggerated form since these might not be as easily seen by the students; eating one piece of candy or cookie and chewing it quickly would be a sufficient demonstration of the activity "eat"; rolling and bouncing the ball could be done two or three times so the student is sure to see the activity.

Although many students will naturally imitate the trainer as he performs the activity, this is not a needed part of the training. However, if this doesnot take extra time or if it does not interfere with training, it could be allowed to occur during the early part of training. If the student, on his own, imitates the trainer's performance of the activity, the extra clues of performing that activity would be provided to that student besides the visual clues of seeing the activity. However, as training progresses, the student should be encouraged to remain seated while he tries to answer the trainer's question; this change may result at first in some incorrect responses by the student.

Unless the student readily imitates phrases, he need not be trained to imitate the entire phrase of "Roll the ball" or "Bounce the ball." Instead, the trainer may prompt him to say "Roll" or "Bounce" since giving the whole three word phrase as an imitative prompt may result in him imitating the last single word spoken by the trainer ("Ball") which would not identify the activity performed. Also, the trainer should reinforce and prompt the present form of the verbs rather than expecting or prompting the grammatically correct past form ("Eat" rather than training "Ate"; etc.) However, if the student does use this past form on his own, he _should_ be encouraged to continue to do so. When an advanced student is begin trained to answer with phrases or sentences then the past verb forms should be used.

6c. _Naming a concealed object:_

Test: The attendant should have all the 8 objects (ball, key, spoon, shoe, baby, car, comb, and hat) on the testing table as well as a box with a top. The box should be large enough to hold each of the single objects (shoe boxes are generally large enough). As the student is watching, the attendant picks up an object, one at a time, and places it in the box covering the box with the lid. Then the question is asked as the attandant points to the closed box, "What's in the box?" Enough time to respond is allowed before going to the next item. Each object is tested two times. The student passes the test if he makes 15 correct responses out of 16 possible. In order for the response to be correct, the student must correctly name the concealed object in a way that would be intelligible to an average careful listener. Other responses are judged to be partially correct (seems to be the correct name but not intelligible); incorrect (names wrong object, says "box", or word totally unintelligible); or no response (student says nothing). If the student scores less than 15 correct responses, training is required.

Training: In this part the student learns to name an object which has been concealed in a covered box as he is watching. This task is more difficult than merely naming objects in 6a since it involves memory of an object. Therefore, passing the final testing on part 6a. is necessary before training on part 6e. can take place.

Since the skills of naming objects are needed before training this part, these naming skills may also be used to prompt the student into making the correct response. The easiest method to begin with would use a series of prompts. First, the trainer would hold up an object and ask as in 6a., "What is this?" When the student responds correctly, he is given token or food and quickly praised (prompting is given if needed - "Say BALL.") Next, the trainer places the object in the box without putting the cover on the box, and again he asks the student, "What is in the box?" as he points to the object, using prompts until the student responds to this question with the name of the object. Finally, the trainer covers the box and asks the same question again, "What is in the box?" as he points to the box and prompting the student until he correctly names the object. This long, four-question procedure could be used for initial training of the student on objects incorrectly responded to on the initial testing. As the student becomes successful with this procedure and needs no other prompts besides the four questions, the trainer may drop all but the first question ("What is this") which is asked as the trainer holds up the object and the last question ("What is in the box?") After the first question, the object would be placed into the box and covered and the child would be asked, "What is in the box?" prompting the student as needed ("Say name of object.")

Finally, when the student is able to correctly identify the object in the box at this two-question level without any imitative prompting ("Say BALL."), the trainer may proceed to the last step in training. During this step, the trainer holds up the object to be placed into the box, and as the student is looking, places it into the box, covers the box, and asks "What's in the box?" The student is prompted ("Say BALL.") as needed. During all these steps in training labeling, feedback is provided by the trainer after every correct response, made with or without prompting. To do this, the trainer praises the student, removes the cover and points to the object in the uncovered box saying, "The BALL is in the box."

7. Expressive Expansion Phase: Using word(s) to label, to ask, to tell whose, to tell where:

This phase attempts to teach the student to respond with words to questions more complex than the simple "What is this?" question used primarily in phase 6, Basic Receptive Phase. The student now is taught to respond to questions such as, "What do you want?"; "Where's the shoe?"; "Whose eye is this?"; "What do you want me to do?"; and "What's gone?". Depending upon the skills of the student, a one-word response ("Ball"), a two-word response ("My Nose") or a phrase or sentence response ("Ball is gone.") may be trained.

7a. Asking for an object:

Test: The attendant places all eight objects in a box large enough so that each is somewhat visible to the student. The box is then shown to the student, removed from his sight (tipped away or put under the table) and the attendant asks "What do you want?" The student is handed the object he asks for and is allowed to hold it for a few seconds before it is put out of sight with other testing materials not being used. If the student asks for something other than an object in the box, then he is given nothing except praise by the attendant and given a token. If the student says nothing then, as usual procedure in testing, he is not praised or given a token. This procedure is repeated four times, each time with the object asked for by the child on the preceding trial removed from the choice of objects presented in the box to the child.

Correct responses are any of the names of the eight objects (ball, key, baby, shoe, car, hat, comb, or spoon) given by the student in response to the question and in a way that is intelligible to an average careful listener. Also no single item can be asked for more than one time. Therefore, if the student asks for "car" on the first trial, he is given the car for a few seconds and scored a correct response; however, if after the car is put away and he is shown the box and asked what he wants and again asks for the car, he must be scored a partially correct response and is given nothing. In order to pass this test, the student must ask for four different objects in an intelligible way; this is 100% correct performance since there are only four items in the test. If the student makes less than four correct responses, training on this part is required.

Training: The purpose of this part is to begin to teach the student that he can use words to ask for things - a valuable skill that will encourage, if the student acquires it, repeated use of the words learned in the program. The effort of asking for objects with words is automatically reinforced when the asked-for object is given to the student by a listener. However, this training procedure may seem to be rather artificial in that a student is assisted or prompted into asking for one of the 8 objects whether he really "wants" that object or not; but, since it is not always possible to know a student's wants and since the student is reinforced with praise and tokens for asking for an object, then perhaps this method of teaching the skill of asking for things can be justified.

The following shaping procedures have been effective in teaching this skill to students. First, the trainer shows the student the box of objects saying, "What do you want?" If the student does not respond, the trainer selects an object for the student and says, "What is this?" The student should respond correctly by naming the object; if he does, he is immediately given the object by the trainer and reinforced with praise and a token. Second, the trainer slowly omits or fades out the prompt ("What is this?") until the student asks for the object held up in response to the question "What do you want?" After the student is correctly doing this, the trainer goes to the third step of training. Here, the trainer stops presenting a particular object but merely puts the box in front of the student and asks "What do you want?" If a student does not ask for an object, he may at first be prompted by having the trainer merely point to one in the box. During these first few steps in training, the objects are always visible to the student as he is asking for one of them.

During the fourth step in training, the trainer shows the student an object and then removes it from his view when asking the question, "What do you want?" In this step, the trainer might put only one object in the box, show it to the student, remove it from his view and ask "What do you want?" prompting the student (show object again and ask "What is this?") only if he says nothing. (If the student asks for an object besides the one in the box, then this fourth training step of placing only one object in the box is omitted; the student is given that asked-for object and the final training step is done.) Next, more objects are added to the box until the student is able to make his selection from the eight objects in the box. During this fifth and last training step, it would be a good idea to never have less than four objects to choose from in the box since it is not the intent of the training to "force" the student to "want" all of the eight objects.

If a student continues only to ask for one object, the fourth training step should be worked on until the student begins asking for other objects. A student does not have to be trained in all the five gradual steps if he seems to be catching on to the idea of the training in this part and begins asking for different objects on his own.

7b. Telling where an object is:

Test: The attendant places all of the eight objects (ball, key, hat, shoe, baby, car, comb, and spoon) within her reach. Also, there should be an extra chair in her reach and a small, open box on the testing table. The attendant places an object on one of the four room parts (box, chair, floor, or table) as the student is watching and then asks, "Where is the name of object?" Each item is presented one at a time allowing enough time for the student to respond. Also, each object should be recovered from the room part where it was placed before the next item is presented. Since 24 different combinations of single objects on different room parts is possible, the attendant should try to choose a variety of commands and present them to the student in a mixed up order (not giving all the similar room parts in a row, i.e., 1) "Put the ball on the floor," 2) 'Put the shoe in the box," 3) "Put the hat on the table," etc. Out of the 24 possible commands, the attendant chooses 16, testing each of the eight objects two times each (each time in two different places, i.e., "Put the shoe on the floor," "Put the shoe on the chair.")

A correct response to the question, "Where is the __________?" could be a number of different answers, as long as the words spoken by the student are said in an intelligible way. For example, if the attendant placed the car on the chair and asked the student where the car was, any of the following intelligible answers would be scored as correct responses: "Chair," "On chair," "On the chair," "Car on chair," "The car is on the chair," "Car chair," or if the student pointed to the object and said, "There," or "Right there," or "There car," or something similar containing the word "there" or "here." All other responses would be scored as partially correct (seems to be correct but not intelligible enough); incorrect (student gives wrong room part); or no response. In order to pass this test, the student must make 15 correct responses out of 16. Scores less than this require training.

Training: In this part a student is taught to use his names for room parts to tell where an object has been placed. (It is possible that a student may be taught to respond with the one-word response, "There" as he points to the object or with the two-word response, "There name of object," or "Name of object there," as he points to the object; however, the response of naming the place where the object has been put is a more desirable and useful training goal.)

A number of methods could be used to teach this part to students; the following is a 2-step method which can be used:

First, a trainer begins with the initial training task (i.e., shoe on floor) and after picking up the object (i.e., shoe), he would point to the appropriate room part (i.e., floor) where that object will next be placed, asking "What is this?" Prompting is provided if needed to get the student to correctly name the room part ("Say, 'floor'.") Then, the student is quickly praised and the trainer places the object in his hand on the room part just named and asks the student, "Where is the shoe?" as he points to the object. If the student responds with the correct room part name, he is praised, given feedback ("The shoe is on the floor,") and given a token. If the student gives an incorrect response or no response, then an imitative prompt is used by the trainer to get him to name the place where the object has been placed (i.e., "Say, 'floor'.")

After the student is correctly naming the room part in response to both questions ("What is this?" and "Where is the BALL?") without other prompts, then the last step in training may be worked on. In this step the trainer would stop using the first room part naming question and only place the object on the room part asking "Where is the BALL?" If the student is unable to correctly give the name of the room part in response to this question, the trainer should go back to the earlier step and ask the student, "What is this?" as he points to the room part; when the student answers, the trainer again asks, "Where is the object on that room part?" If the student still does not give the name of the room part, the trainer may initially provide an imitative prompt after this last question ("Say, 'floor'.") Training continues until the student is able to give the name of the correct room part on which an object has been placed in response to the single question "Where is the BALL?" without any prompting.

If the student being trained in this part of the program is able to imitate phrases (3d.), then after mastering a one-word response to the question "Where is the BALL?", the trainer might try to get the student to answer with a two-word response such as: "Shoe chair," "On chair," or even a three-word response such as: "Shoe on chair," or "On the chair."

7c. Telling whose body part is pointed to:

Test: The attendant places a large doll on the table in front of the student (doll should have visible teeth and hair). The attendant then points to either a body part on the student or one on the doll and asks, "Whose nose is this?" Each of the four body parts trained in 6c are asked about: eye, nose, teeth, and hair. Also since both the student's and the doll's body parts are asked about, there are eight different commands to be tested:

1. baby's nose
2. baby's eye
3. baby's teeth
4. baby's hair
5. student's nose
6. student's eye
7. student's teeth
8. student's hair

All eight combinations listed above are each tested two times in a mixed-up order making 16 test items.

Correct responses must either be "Baby's" or "Baby" if a baby's body part was pointed to or "Mine," if the student's body part was pointed to. Other correct responses include the student's own name (i.e., "Tommy's") when his body part was pointed to or "Doll's" when the doll's body part was pointed to. Also any two-word responses, if correct and intelligible, may be scored as correct ("Baby's eye," "My hair," etc.) All correct responses must be intelligible to an average careful listener. In order to pass this test the student must make 15 correct responses out of 16 possible; scores less than 15 require training.

Training: In part 5c. (pointing to body parts: student's or baby's) the student was taught to discriminate the difference between his own body part and those of a doll. In this part the student learns to tell, with one or more words, whose body part is pointed to by the trainer. This latter skill is build directly on the skill learned in part 5c. The student will be taught at first to give a one-word answer to the question, "Whose body part is this?" - either "Baby's" or "Mine" (however, the student's name may be used in place of "Mine"). Some students may later learn to reply with a two-word response naming both the owner ("Baby's" or "My") and the body part, i.e., "Baby's hair", "My eye", etc.).

The following training procedure is suggested to teach the student to tell whose body part is being pointed to by the trainer. For example, the trainer points to and touches the student's nose and says, "Whose nose is this?" (A mirror may be used to show the student his body part in this early training step.) Next, the trainer gives an imitative prompt to get the student to copy the correct answer: "Say, 'Mine'." If the student imitates the word in an understandable way, he is praised, given feedback ("That's Tommy's nose,") and a token. Then the trainer should slowly stop giving the student the imitative prompt so that the student can answer with the word "Mine" by himself. If the child answers "Mine" and the trainer either says, "Good, that's yours," or "Good, that's mine," the student may become mixed up; therefore, the feedback mentioned above should use the child's name rather than a pronoun to avoid the confusion which would result.

Once the student correctly says "Mine," to "Whose nose is this?" as the trainer points to the students nose, the next step is taken; the trainer points to the doll's nose and says, "Whose nose is this?" The trainer may give the student an imitative prompt ("Say, 'Baby's',") or may use the question, "What is this?" as he points to the baby. Either prompt would assist the student in making the correct response "Baby's." Training on this continues until the student can answer "Baby's" without any prompts whenever the trainer points to the doll's nose and says "Whose nose is this?"

Training is done in a similar way on all the four body parts of the doll and student. The student should learn to give the correct answer when the questions are asked in a mixed-up order.

If the student being trained in this part of the program is able to imitate phrases (3d), then after mastering a one-word response to the question, "Whose __________ is this?", the trainer might try to get the student to answer with a two-word response such as: "Baby's nose," or "My nose."

7d. Telling the trainer to perform an activity:

Test: The attendant places some small candies and a ball on the testing table in view but not in reach of the student. The attendant stands as the student remains seated and asks the question, "What do you want me to do?" The student is expected to give one of the six commands for an activity learned in 6d (jump, sit, march, roll the ball, bounce the ball, and eat). As soon as the student gives one of these commands, the attendant should perform the requested activity in full view of the student.

The same question, "What do you want me to do?" is asked the student six different times allowing enough time for the student to respond in between each question. In order to pass this test, the student must give at least four of the six commands while two of his answers may be repeats of the same commands or other incorrect responses (naming objects, body parts, etc.) or no response. Also, each of the commands given by the child must be intelligibl[illegible]rage careful listener in order to be scored correct. If a student scores less than four, training on this part should be given. (Note: Other commands not trained on this program may also be given by the student and scored correct, such as "Clap," "Sing a song," "Dance," etc. When commands such as these are given, the attendant should still perform the requested activity, if within reason, so the student is encouraged to continue commanding activities to the question, "What do you want me to do?")

Training: The purpose of this part is to begin to teach the student that he can use words to tell others to do things, such as perform various activities. This skill of requesting others to do something is similar to that taught in 7a. (asking for an object.) Also, many of the same difficulties of training a student to "want" a particular object from a group of eight objects are again met when one tries to train a student to "want" a trainer to perform a particular activity out of a group of six different activities. Despite these difficulties in training this skill, once a student can use words to request others to perform activities, generally, he will continue to do so if those persons being asked continue to perform the requested activities; that is, students often seem to regard this skill of commanding others to do something as being rather fun.

In order to train this, the trainer should again, as in part 4d and 6d, have a ball and candy on the table and should stand up so he is ready to perform the standing activities (sit, march, jump). The remaining three activities (eat, roll the ball, bounce the ball) may also be performed by the trainer as he stands. After determining task training order for the student, the trainer begins by standing up and asking the question, "What do you want me to do?" If the student does respond with one of the six activities (or another different activity), the trainer immediately performs it for the student, praises him and gives him a token. If the student does not respond by naming the activity, the trainer helps him by giving him an imitative prompt such as "Say, 'jump'." When the student says jump, the trainer immediately jumps for the student, praises and gives him a token. One command should be worked on at least three times in a row to encourage the student to say the command after the trainer asks the question and before the trainer must give an imitative prompt ("Say, 'jump'.") As the student is successful in quickly imitating a number of prompted commands after the trainer's question, then the trainer should begin dropping out the imitative prompt; at first, the trainer may only give a partial prompt after asking the question leaving out the "Say," in the prompt, "What do you want me to do?. . .Jump". Next, as the student is successful, the trainer could merely begin saying the command and the first sound of the command: "What do you want me to do?. . . Ju--". The trainer should always hesitate a few seconds after the question so the student has a chance to respond without a prompt, rather than always hurrying to give the student assistance by telling him an activity to request. Training continues until the student will request at least four of the six activities without any prompting by the trainer. If a student is unable to imitate phrases, the shortened forms of the two longer commands (roll the ball and bounce the ball) may be used: "Roll" and "Bounce."

7e. Naming a missing object:

Test: The attendant should place all eight objects (ball, hat, key, shoe, baby, car, spoon, comb) and the small box (shoe box size) on the testing table. The attendant picks up three of the objects and places them one at a time into the box as the student watches. The attendant then turns her back on the student and removes one of the three objects, shows the student the open box again and asks, "What's gone?" The student is expected to name the missing object in an intelligible way in order to be scored a correct response. Enough time is allowed for the student to watch the attendant place the three objects into the box and for a response from the student after the question is asked. The attendant chooses eight different groups of three objects each for the test items, each time removing one of the three objects (taking care not to remove the same object repeatedly or the last one put into the box; this is prevented by writing out on a test form--before testing, all the 8 test items and which object for each set will be removed.)

In order to pass this test, the student must name at least seven of the eight objects removed from the box in an intelligible way which could be understood by a careful average listener. If the student names an object put into the box but not the one removed, he is scored a partially correct response; all other responses are incorrect (names another object or gives any other word) or no response. Students scoring less than 7 correct responses should be trained on this part.

Training: In this part the student is taught to name a missing object - an object which was present but is now missing or gone. The student is shown three of the usual objects. The trainer turns his back and removes one from the box without letting the student see. The trainer then turns back around, shows the student the remaining two objects and says, "What's gone?" The student is required to name the missing object.

To train this skill, the following procedure is suggested. In the first step, the trainer places the object into the box. After pointing to the object, the trainer asks the student, "What's this?" When the student names the object (prompt only if necessary by saying, "Say 'BALL'") the trainer allows him to watch as the object is removed from the box and placed on the table. Then the trainer points to the empty space in the box and says, "What's gone?" If the student does not give the name of the object just removed, the trainer should point back to the object and prompt him "What's this?" When the student labels the missing object correctly with this prompt, praise and labeling feedback are given ("The BALL is gone.")

When the student is able to name the missing object with the "What is this?" prompt, then the trainer should begin omitting this prompt; object removed from box as student watches, trainer points to empty space in box and asks, "What's gone?" and, if no correct response is given by the student, the trainer repeats the question and gives a partial prompt by pointing to the removed object. Praise, token and feedback are given ("The BALL's gone.").

In the third step, the trainer should teach the student to answer the same question ("What's gone?") without allowing him to watch as the trainer removes the single object from the box with his back turned. Imitative prompts are given only if needed and faded out as soon as possible: "Say 'BALL'." Then, when the student is able to do this without imitative prompts, the fourth step is trained. Two objects are placed in the box and the student is asked to name each when twice asked the question: "What is this?" Then, one of the two objects is removed as the student watches. The trainer points to the empty space in the box (one object is still remaining in the box) and asks, "What's gone?" The student is prompted by the trainer if needed as done above (point to the removed object and asked, "What is this?"). This step is worked on by the trainer until the student can name the object removed from the box. The trainer, in the fifth step (as in the second) fades out the prompt question ("What is this?") and if necessary, partially prompts by pointing to the missing object after asking "What's gone?" Next, the sixth step is taught as in step three: the student is taught to answer the same question ("What's gone?") without being allowed by the trainer to watch as one of the two objects is removed from the box when the trainer's back is turned. Imitative promps may be used if needed but should be faded out before going on ("Say 'BALL'.")

The seventh step in training this task repeats the first and fourth steps but uses three objects. The trainer places three objects in the open box asking the question "What's this?" about each of the objects. Then the trainer removes one as the student watches and again asks, "What's gone?" as he points to the empty space in the box. If the student is unable to tell what is gone from the box, the same naming prompt is used as in step one and three: trainer points to the removed object lying on the table and asks, "What's this?" Finally, the prompt question is faded out as well as pointing to the removed object and when the student can answer, the eighth and last training step is taken. This step, like step three and six, requires the trainer remove one of the three objects from the box as his back is turned on the student preventing him from seeing that object. The student is shown the two remaining objects in the open box and is asked "What's gone?" He then is trained until he can name the missing object without any assistance (such as revealing the missing object quickly and asking, "What is this?" and then repeating the "What's gone?" question.)

The feedback given to the student when he names the missing object is "That's right. The ball is gone." This type of feedback may later help the student to learn to say the two-word answer to the "What's gone?" question: "Ball gone."

APPENDIX

APPENDIX A

Definitions:

1. Reinforcer: (reward) an object or event (food, toy, smile, praise, token, hug, etc.) which will increase the number of times a response occurs if it is given to a student over a period of time immediately following that particular response.

2. Reinforcement: the process of purposefully giving a reinforcer to the student immediately following a particular response.

3. Response: any behavior that can be observed (saying a word, smiling, looking when one's name is called, blinking one's eyes, clapping one's hands in imitation of someone else clapping, touching a particular object on command, jumping on command, etc.)

4. Continuous reinforcement: Use of reinforcement following every correct response or partially correct response for the purpose of getting the student to learn a particular response; this procedure of giving continuous reinforcement is especially good for initially getting a student to quickly learn a new response.

5. Intermittant reinforcement: use of reinforcement following some correct responses or partially correct responses rather than following every single correct or partially correct response. Intermittant reinforcement could be regularly spaced intermittant reinforcement (reward the student every other correct response, or every fourth response and ignore those in between) or it could be mixed up or randomly spaced reinforcement of correct responses

(reward the 1st, 4th, 5th, 7th and 9th correct responses). This procedure makes a student who already knows a particular response (calling the object 'ball' by its name, "ball") more apt to remember this response over a period of time--intermittant reinforcement makes a response stronger than if the student always were rewarded every time he made that response.

6. Shaping: is the method of reinforcing a student for only beginning to make a new response or for making only part of that response rather than waiting for him to make a perfect, complete response before giving him reinforcement. This encourages a student when he is first trying a new response. For example, if you are trying to teach a student to imitate you when you hit the table with a hammer, you would say, "Do this," and demonstrate this response as he watches and then put the hammer in front of him. If he merely picked up the hammer but did not hit the table and you then immediately praised him and gave him a token or juice, this would be shaping his response of imitating you when you hit the table with a hammer. By reinforcing him at this point, you are letting him know that he is doing something correct and he will be more apt to pick up the hammer following the next demonstration. However, in order to continue to shape the entire correct response (of hammering the table in imitation) you must gradually expect the student to do more of the whole response with or without help from you. With help: pushing his arm toward the table as he holds the hammer so there is a bang and then reinforcing him; without help: waiting for him to accidently hit the table with the hammer and immediately giving him reinforcement. By this process, approximate responses are shaped into correct responses.

7. Prompting: is the process of providing a student with assistance for the purpose of getting him to make the correct response.

a. Physical Prompting: generally refers to the process of physically putting the individual through all or portions of the correct response. This could include any of the following: moving a student's hand to touch an object asked for by the trainer; sitting a student down in a chair after giving him the command to "Sit"; pointing to the object the student has been asked to give the trainer, etc.; demonstrating to the student the movement response and expecting him to imitate ("Jump", "do this" and show the student how to jump, etc.)

b. Vocal Prompting: consists of using instructions or word cues to help the student make the correct response. This could include any of the following: urging the student to touch his nose as he moves his hand up towards his face, repeating part of the command which was not followed by the student ("Get the shoe AND the BALL.") giving the student the word response and expecting him to imitate it ("What is this?" as you point to the car, "Say, 'CAR'.").

8. Fading: is the gradual process of giving less and less assistance to the student as you are training him to perform a certain response and at the same time expecting him to perform more and more of that response by himself without help. For example, when training a student to answer the question, "Whose hair is this?" as you point to the hair of the doll, you might initially have to provide the student with a complete vocal prompt: "Say, 'baby's hair'."

9. Time Out: is either regarded as an extinction procedure or a mild form of punishment which involves moving a student from the positive reinforcers to a situation where there are no positive reinforcers for that individual;

it is generally used as a consequence for undesirable behavior for the purpose of decreasing the behavior that it follows; may vary from turning one's head away from the student for a few seconds to leaving him alone in room, to removal of the student from the situation to a time out seat or room--each degree of time out being contingent upon the undesirable behavior.

APPENDIX B

Equipment Used In Retarded Trainer - Student Language Program Flow Chart A
(Starred equipment is not needed for direct training by an attendant: Flow Chart B)

1. Trainer boxes containing (one needed per trainer):
    - a. bell
    - b. pounding table with hammer
    - c. rock-a-stack
    - d. xylaphone
    - e. cup with two blocks
    - f. drinking plastic glass
    - g. hat
    - h. doll with hair and teeth
    - i. shoe (tennis shoe or other child's shoe)
    - j. comb
    - k. keys on ring or string
    - l. spoon
    - m. car
    - n. ball
    - o. cardboard box with top (shoe box size)
    - p. two coffee cans (1 lb. and 2 lb.) with tops
    - q. about 50 poker chips or checkers of one color
    - r. timer
    - *s. small envelope of red tags

*2. Training card file (one per retarded trainer)

*3. Training card holder (one per retarded trainer)

4. Attendant notebooks containing:
    - a. daily log sheets
    - b. dividers in notebook for each student
    - *c. packet of stars for retarded trainers daily work sheets
    - d. trainers calendars
    - e. testing forms

*5. Portable handled carriers (one per attendant)

- *a. to hold articles for purchase by retarded trainers: 5¢, 10¢ and higher-priced objects to be purchased by trainers following each session (may be used also with higher functioning students on token reinforcement with a set value for each token)

- *b. individually labeled boxes for the storage of each retarded trainer's savings and a money box supplied with pennies and small change

6. Portable handled carriers to hold food reinforcers for students: (one per attendant)
    - a. small, zip-lock bags of marshmellows, M and M's, cheezies, animal crackers, candy corn, etc.
    - b. cupcake can (6 cups) to hold a selection of reinforcers
    - c. plastic container of kool-aide and supply of paper cups
    - d. covered container of applesauce or pudding
    - e. roll of paper towels

7. Attendant training and testing manual for the Modified Language Acquisition Program

*8. Screen (may also be needed when retarded trainers are not used)

9. Training room with table and chairs

APPENDIX C

Picture training cards for each part of the MLAP to guide the retarded trainer

General guidelines for making picture training cards:

1. It is easiest to put the drawings on ditto masters so as many copies of the pictures can easily be made; for the present project the dittos were divided into five 3" by 5" sections so the drawings could be cut apart with a paper cutter after being run and would fit into the roto-recipe files used by the trainer. This size also fits easily into the photograph holder books which were used by trainers with limited arm movement (each page of these books held many task cards making it unnecessary to turn a page for every task).

2. Each task picture described for all parts below should have three copies so a task can be programmed to be repeated at least three times in a session.

3. Picture training cards are most easily kept in order when filed in a shoe box with index card dividers to mark phases and part divisions.

4. If a trainer can read then tasks may merely be written on cards or the trainer, at this level of functioning, may be able to train without using task cards at all.

1. Attending Phase

   a. sitting: no cards needed (trained by attendant)

   b. sitting without I.C.M.R.: no cards needed (trained by attendant)

   c. looking at objects: all eight objects are shown singly on cards

   d. pre-trial eye contact: same as c.

2. Motor Imitation Phase

   a. with objects: pictures of all 14 tasks; show action in picture (for example: "put hat on head" task card shows a boy holding a hat over his head with arrows pointing from the hat downward.)

   b. with body parts: pictures of all 14 tasks; as in 2a show the action made with the body parts.

3. Vocal Imitation Phase

   a. gross vocal: photographs of someone saying the sound "ah" best illustrates the task for the retarded trainer.

   b. vowel imitation: additional photographs of someone saying the "e", "oh", and "oo" sounds plus the "ah" photographs of 3a.

   c. word imitation: pictures of all the words to be imitated.

   d. phrase imitation: phrases can be illustrated with pictures ("ball and key" illustrated with a picture of both objects, etc.)

4. Basic Receptive Phase

   a. touching objects: in this part a series of cards picturing objects is used to guide the retarded trainer through the four training steps outlined in the manual. Therefore, cards are first needed which picture each object singly, then two objects, three objects, and finally all eight objects. It was found to be easiest to illustrate the first three steps by picturing all eight objects singly for the first step, all eight objects with another object for the second step, and all eight objects with two other objects for the third step. The object the trainer would ask the student for was circled (a card at step two could show a ball and comb with the comb circled; this would guide the trainer to place these two objects in front of the student and ask him to touch the comb.) However, the most difficult step of training this part, using all eight objects, is best illustrated by picturing only one object, uncircled to differentiate it from step one, and training the trainer to remember that this means to put all objects out and ask for the one pictured. Picturing all eight objects seemed to result in the trainer taking pains to arrange the objects as pictured since this was done in the first three training steps. In the first three steps the position of the asked for object (the circled object) should be varied so as to prevent the trainer from always asking for an object in the same position which would result in the student learning to respond to position rather than to the word.

b. pointing to room parts: all four room parts were pictured, and the one to be asked of the student was circled.

c. pointing to body parts: again as in 4b it seemed easiest to merely picture the four body parts singly on cards.

d. performing activities: the activities were drawn to show action but often were not readily remembered by the trainer (especially roll versus bounce the ball and march versus jump). For this reason photographs might be more effective.

e. finding an object (not visible): the pictures of single objects, uncircled, as in the last training step of 4a were used. However, it may have made the trainer more independent if the single object was placed on a table visible but behind a screen to remind the trainer how to set up the training materials (in the present project trainers often had to be reminded to hide the objects when using the cards first suggested.)

5. Expansion Receptive Phase

a. giving trainer two objects: a large number of object pair combinations were selected making sure all objects were pictured equally often and the same number of times on the right and the left of the picture card. This latter point was taken into consideration since trainers generally responded to the picture in one direction (either asking for the object pictured on the right first or on the left first.) Sixteen pairs were selected.

b. placing an object on a room part: since there are 32 possible combinations and three copies of each card are needed, it is best to merely select sixteen different combinations. Again, one should make sure that all objects and all room parts are used approximately the same number of times.

c. pointing to body parts (possession: self and baby's): since there are only eight possible combinations here, all are pictured. The drawings showed a hand touching either a body part on a doll or on a boy's face.

d. finding two objects (not visible): the same pictures used for part 5a were used here. However, it would be better to picture, as in 4e, the two objects to be asked for on a table partially hidden by a screen.

6. Basic Expressive Phase

   a. naming objects: same as 4e, each object is pictured single.

   b. naming room parts: same cards used as in 4b.

   c. naming body parts: same cards used as in 4c.

   d. naming activities: same cards used as in 4d.

   e. naming a missing object: same cards used as in 4e.

7. Expansion Expressive Phase

   a. asking for an object: the objects the student was trained to ask for were merely pictured as in part 4e.

   b. telling where an object is: same cards used as in part 5b.

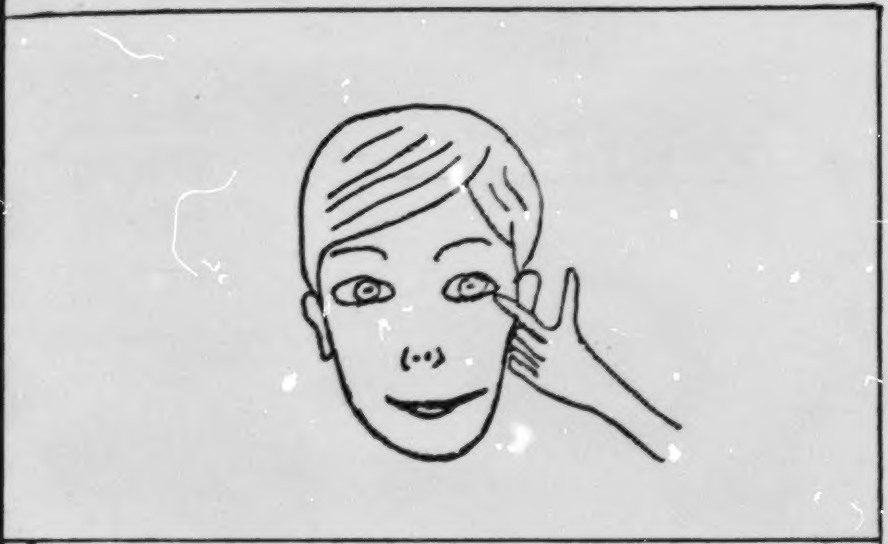
   c. telling whose body part is pointed to: same cards used as in part 5c.

   d. telling trainer to perform an activity: same cards used as in part 4d.

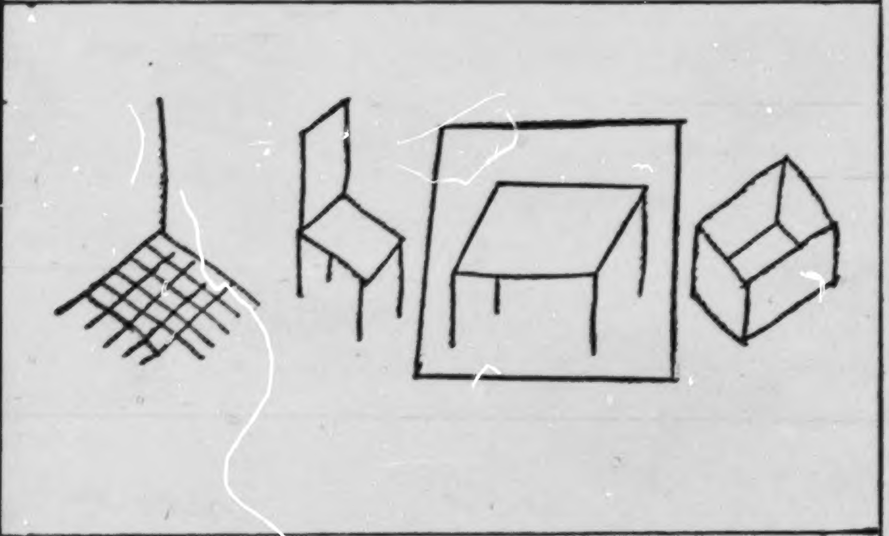
   e. naming a missing object: cards used here were the same as those in the third training step of part 4a. Each card pictured three objects, one of which was circled to indicate to the trainer which object was to be removed. In addition to these cards, the same cards used for the first two training steps of part 4a were also used to guide the trainer during the first two training steps of part 7e: first cards used pictured a single object and second cards pictured the two objects which were placed in the box, one circled to indicate which one was to be removed.

NOTE: For all the parts in phases 4 through 7, if an artist is available, or if there are enough funds for photographs, the task cards could be better suited to the specific command or question the trainer must give for that task. For example, in the Basic Expressive Phase, the asking command could be differentiated from the command used in the Basic Receptive Phase by showing a trainer holding up the object to indicate "What is this?" while the cards for 4a could merely show a hand touching the object to be asked for. These changes would allow the trainer to become more independent as he trains students in different parts during one session--he could go from part to part and continue training without any command reminders from the attendant.

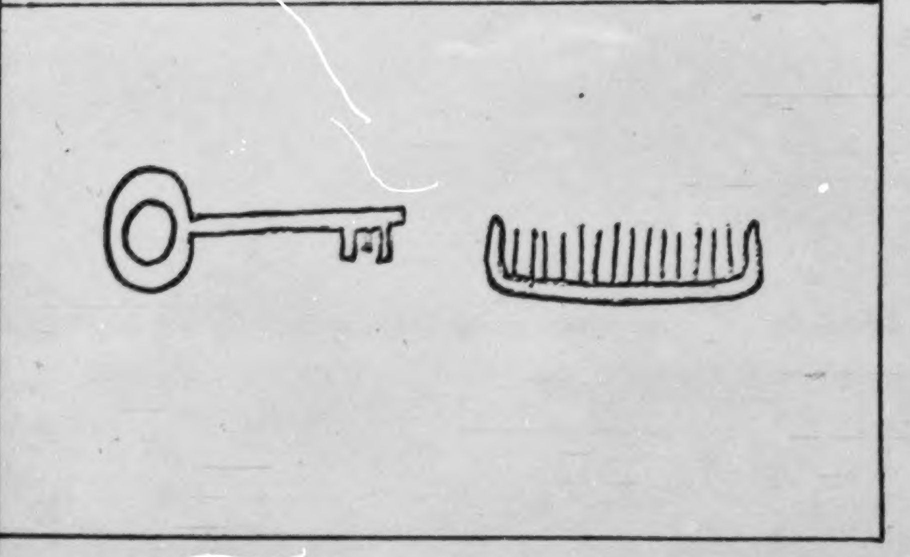
Picture Training Card Examples



1. Used for parts 4c, 5c, 6c and 7c.



2. Used for parts 4b and 6b.



3. Used for parts 5a and 5e.

APPENDIX D

THE MODIFIED LANGUAGE ACQUISITION PROGRAM FINAL TESTS

THE MODIFIED LANGUAGE ACQUISITION PROGRAM FINAL TESTS

TO ACCOMPANY THE MODIFIED LANGUAGE ACQUISITION PROGRAM*

Student ______________________________

Date ______________________________

Examiner ______________________________

Test Purpose: Check One
_____ Initial Test

_____ Follow-up Final Test (1, 2, 3, 4)

Reinforcer:
A. Check one:
_____ token _____ no token

B. Check one or more and specify:
_____ food: 1. solid _____
2. soft _____
3. drink _____

_____ other: 1. toy _____
2. other _____

GENERAL DIRECTIONS: The child's performance on each trial is recorded in the blank following the response as one of the following:

+ correct response
(+) approximation
- incorrect response
NR no response

With the exception of the first two parts in the Attending Phase (see the description for those parts in the testing manual) each correct response is worth one point and all other responses are not worth any points or fraction of points.

SUMMARY OF SCORES: Number of possible points follow individual part, and number of points needed to pass are in parenthesis. Total scores, enter them below, and circle training area(s).

I. Attending Phase
  A. Sitting - 30 __________(30)
  B. Elimination of ICMR - 30 __________(30)
  C. Looking at objects - 5 __________ (5)
  D. Pre-Trial Eye Contact - 5 __________ (5)

II. Motor Imitation Phrase
  A. With Objects - 8 __________ (7)
  B. With Body Parts - 8 __________ (7)

*MLAP was adapted from: Kent, L., Klein, D., Falk, A., and Guenther, H., "A Language Acquisition Program for the Retarded". In McLean, J.E., Yoder, D.E., and Schiefelbusch, R.L., (eds.) Language Intervention with the Retarded: developing strategies, Baltimore, Maryland: University Park Press, 1972; by Martha F. Snell, Michigan State University, Department of Elementary and Special Education, 1972.
The MLAPFT are meant to be accompanied by the testing and training procedures described in: A Modified Language Acquisition Program for use by Attendants and Attendant-Supervised Retarded Trainer-Student Pairs, Martha E. Snell, 1972.

For additional reference, see:
Kent, L. Language Acquisition Program for the Severely Retarded. Champaign, Ill.: Research Press, 1974.

III. Vocal Imitation Phase
- A. Gross Vocal - 3 __________ (3)
- B. Vowel - 12 __________(11)
- C. Word - 36 __________(33)
- D. Phrase - 20 __________(no passing score)

IV. Basic Receptive Phase (Understanding single words that label)
- A. Touching Objects - 16 __________(15)
- B. Pointing to Room Parts-8 __________ (7)
- C. Pointing to Body Parts-8 __________ (7)
- D. Performing Activities-12 __________(11)
- E. Finding an Object - 16 (Not Visible) __________(15)

V. Receptive Expansion Phase (Understanding combinations of words that label)
- A. Giving Trainer 2 Objects - 10 __________ (9)
- B. Placing Object on Room Part - 10 __________ (9)
- C. Pointing to Body Parts - 16 (self and baby's) __________(15)
- D. Finding 2 Objects - 10 (Not Visible) __________ (9)

VI. Basic Expressive Phase (Using single words to label)
- A. Naming Objects - 16 __________(15)
- B. Naming Room Parts - 8 __________ (7)
- C. Naming Body Parts - 8 __________ (7)
- D. Naming Activities - 12 __________(11)
- E. Naming a Concealed Object - 16 __________(15)

VII. Expressive Expansion Phase (Using combinations of words to label)
- A. Asking for an Object - 4 __________ (4)
- B. Telling Where Object Is - 16 __________(15)
- C. Telling Whose Body Part is Pointed to - 16 __________(15)
- D. Telling Trainer to Perform an Activity - 6 __________ (4)
- E. Naming a Missing Object - 8 __________ (7)

SCORING SECTION PERFORMANCE

I. Attending Phase

I-A Sitting Still: Note whether child sits without prompts or receipts of reinforcers for 30 seconds. If less than 30 seconds, note number of seconds child sits: __________ seconds __________

I-B Elimination of Incompatible Motor Responses (Getting rid of movements that interfere with training): Note whether child exhibits incompatible motor behavior within the 30 second sitting period; if so, note number of seconds child sits without ICMR: __________ seconds __________

Description of any ICMR: ____

____

I-C *Looking at Objects*: Note whether child looks at correct objects when trainer says, "Look at this," and points to the object. Total __________

1. key spoon *comb* baby car __________
2. key spoon comb *baby* car __________
3. key spoon comb baby *car* __________
4. key *spoon* comb baby car __________
5. *key* spoon comb baby car __________

I-D *Pre-Trial Eye Contact*: Trainer presents initial Inventory "C" again, delaying each trial slightly (may wait 5 seconds), giving each child an opportunity to look at her before giving the command to "Look at this." Note whether child looks at trainer (without prompting) prior to each of the 5 "Look at this" trials. Total ______

1. spoon comb key baby *car* __________
2. spoon *comb* key baby car __________
3. spoon comb *key* baby car __________
4. spoon comb key *baby* car __________
5. *spoon* comb key baby car __________

II. *Motor Imitation Phase*: Trainer says, "Do this", and presents the following imitative models for the child to imitate.

II-A *Imitation with Objects* Total __________

1. Hammer a peg on a toy peg table __________
2. Point to a chair __________
3. Place a single ring on a supported vertical stick __________
4. Point to a chair __________
5. Put a hat on one's head __________
6. Put a hat on one's head __________
7. Place a single ring on a supported vertical stick __________
8. Hammer a peg on a toy peg table __________

II-B *Imitation with Body Parts* Total __________

1. Touch one's nose __________
2. Stick tongue out of mouth __________
3. Stick tongue out of mouth __________
4. Touch stomach with both hands __________
5. Touch one's nose __________

6. Put both arms straight out horizontally at sides __________
7. Touch stomach with both hands __________
8. Put both arms straight out horizontally at sides __________

III. Vocal Imitation Phase

III-A Gross Vocal Imitation: Trainer says, "Do this, say 'ah'", presenting three times for the child to imitate. Total __________

1. "Do this, say 'ah'" __________
2. "Do this, say 'ah'" __________
3. "Do this, say 'ah'" __________

III-B Vowel Imitation: Trainer says, "Say 'ah'", presenting each vowel for the child to imitate. Total __________

1. ah __________
2. ee __________
3. oh __________
4. ee __________
5. oo __________
6. ah __________
7. ee __________
8. oo __________
9. oh __________
10. ah __________
11. oh __________
12. oo __________

III-C Word Imitation: Trainer says, "Say hat," presenting each word for the child to imitate. Total __________

1. hat __________
2. gone __________
3. floor __________
4. nose __________
5. comb __________
6. car __________
7. comb __________
8. table __________
9. eye __________
10. hat __________
11. spoon __________
12. shoe __________
13. spoon __________
14. chair __________
15. hair __________
16. box __________
17. chair __________
18. key __________
19. floor __________
20. ball __________
21. shoe __________
22. nose __________
23. hair __________
24. car __________
25. gone __________
26. table __________
27. baby __________
28. teeth __________
29. key __________
30. ball __________
31. baby __________
32. box __________
33. eye __________
34. mine __________
35. mine __________
36. teeth __________

III-D Phrase Imitation: Trainer says, "Say key and comb," presenting each phrase for the child to imitate. Total __________

1. Key and comb __________
2. Key on chair __________
3. My hair __________
4. Baby floor __________
5. My hair __________
6. Key and comb __________
7. Hat and spoon __________
8. Spoon baby __________
9. Hat and spoon __________
10. My teeth __________
11. Baby's eye __________
12. Spoon baby __________
13. Baby floor __________
14. Key on chair __________
15. Baby's hair __________
16. My teeth __________
17. Baby's eye __________
18. Baby's hair __________
19. My eye __________
20. My eye __________

IV. Basic Receptive Phase (Understanding single words that label)

IV-A Touching Objects: Trainer places objects on table in front of child and within his reach and says, "Show me the comb". Total __________

1. comb __________
2. car __________
3. comb __________
4. key __________
5. ball __________
6. ball __________
7. car __________
8. spoon __________
9. hat __________
10. spoon __________
11. baby __________
12. key __________
13. shoe __________
14. shoe __________
15. baby __________
16. hat __________

IV-B Pointing to Room Parts: Trainer places a box and chair in view of the child and says, "Shoe me the floor." Total __________

1. floor __________
2. box __________
3. table __________
4. chair __________
5. floor __________
6. chair __________
7. table __________
8. box __________

IV-C Pointing to Body Parts: Trainer faces child and says, "Show me (child's name) nose." Total __________

1. nose __________
2. eye __________
3. teeth __________
4. teeth __________
5. eye __________
6. nose __________
7. hair __________
8. hair __________

IV-D Performing Activity: Trainer places a ball and food on the table in front of the child. Both trainer and child stand as trainer gives each command. Note response to: Total ________

1. jump ________
2. sit ________
3. roll the ball ________
4. march ________
5. roll the ball ________
6. march ________
7. sit ________
8. jump ________
9. eat ________
10. bounce the ball ________
11. bounce the ball ________
12. eat ________

IV-E Finding Objects - Not Visible: Objects are placed behind the screen while the child watches. Trainer says, "Go get the ball." Total ________

1. ball ________
2. spoon ________
3. key ________
4. baby ________
5. spoon ________
6. key ________
7. baby ________
8. ball ________
9. hat ________
10. shoe ________
11. comb ________
12. car ________
13. comb ________
14. car ________
15. hat ________
16. shoe ________

V. Receptive Expansion Phase (Understanding two words that label)

V-A Giving Trainer Two Objects: Trainer places all objects on table and says, "Give me the car and the baby." (Hold out both hands) Total ________

1. car and baby ________
2. spoon and hat ________
3. key and car ________
4. key and car ________
5. car and spoon ________
6. shoe and comb ________
7. baby and ball ________
8. baby and shoe ________
9. shoe and spoon ________
10. baby and comb ________

V-B Placing objects on room parts: Trainer places all objects and the box on the table and says, "Put the spoon in the box." Total ________

1. spoon in box ________
2. car in box ________
3. spoon on floor ________
4. shoe in box ________
5. car on table ________
6. baby on table ________
7. key on chair ________
8. baby in box ________
9. comb on floor ________
10. car on chair ________

V-C Touching Body Parts (Self and Baby's): Trainer places a doll in front of child and says, "Show me the baby's teeth." Total ________

1. baby's teeth ________
2. child's teeth ________
3. child's teeth ________
4. child's hair ________
5. child's hair ________
6. baby's eye ________

7. baby's hair __________
8. baby's eye __________
9. baby's teeth __________
10. child's eye __________
11. baby's hair __________
12. child's nose __________
13. child's nose __________
14. child's eye __________
15. baby's nose __________
16. baby's nose __________

V-D Finding two objects (not visible): Objects are placed behind the screen while child watches. Trainer says, "Go get the comb and the shoe." Total __________

1. comb and shoe __________
2. key and hat __________
3. hat and shoe __________
4. hat and shoe __________
5. car and spoon __________
6. baby and car __________
7. baby and car __________
8. shoe and baby __________
9. comb and hat __________
10. spoon and baby __________

VI. Basic Expressive Phase (Using single words to label)

VI-A Naming Objects: Trainer says, "What is this?" as each object is held up, one at a time. Total __________

1. key __________
2. baby __________
3. car __________
4. baby __________
5. car __________
6. shoe __________
7. comb __________
8. ball __________
9. hat __________
10. spoon __________
11. key __________
12. ball __________
13. hat __________
14. comb __________
15. spoon __________
16. shoe __________

VI-B Naming Room Parts: Trainer notes the child's response while pointing to various room parts and says, "What is this?" Total __________

1. chair __________
2. box __________
3. chair __________
4. box __________
5. floor __________
6. table __________
7. table __________
8. floor __________

VI-C Naming Body Parts: Trainer notes child's response as she points to his body parts and to the child's body parts and says, "What is this?" Total __________

1. teeth __________
2. nose __________
3. nose __________
4. eye __________
5. eye __________
6. hair __________
7. teeth __________
8. hair __________

VI-D Naming Activities: Trainer performs activity and then says, "What did I do?" Total ________

1. eat ________
2. sit ________
3. roll the ball ________
4. bounce the ball ________
5. jump ________
6. bounce the ball ________
7. roll the ball ________
8. sit ________
9. march ________
10. jump ________
11. march ________
12. eat ________

VI-E Naming Concealed Objects: Trainer notes child's response while showing object to child, placing it in box, covering box, and saying, "What is in the box?"

1. ball ________
2. baby ________
3. car ________
4. baby ________
5. car ________
6. shoe ________
7. comb ________
8. shoe ________
9. hat ________
10. spoon ________
11. key ________
12. ball ________
13. comb ________
14. key ________
15. spoon ________
16. hat ________

VII. Expressive Exapnsion Phase (Using combinations of words to label)

VII-A Asking for Objects: Trainer notes child's response when he shows child box of eight objects, then tips it away or puts under the table, and says, "What do you want?" Total ________

1. "What do you want?" ________
2. "What do you want?" ________
3. "What do you want?" ________
4. "What do you want?" ________

VII-B Telling where an object is: Trainer puts the object on the room part as the child watches and then notes the child's response when asking, "Where is the baby?" Total ________

1. baby on floor ________
2. spoon in box ________
3. comb on table ________
4. comb on chair ________
5. spoon on table ________
6. spoon in box ________
7. car on floor ________
8. hat on floor ________
9. ball on chair ________
10. key on table ________
11. key in box ________
12. ball on floor ________
13. car on table ________
14. baby in box ________
15. shce in box ________
16. hat on table ________

VII-C Telling whose body part is pointed to: Trainer points to body part on either the doll or the child and notes whether the child correctly answers with either "baby's," "mine," etc., in response to the question asked, "Whose nose is this?" Total __________

1. baby's nose __________
2. baby's teeth __________
3. baby's hair __________
4. baby's nose __________
5. baby's eye __________
6. child's teeth __________
7. child's nose __________
8. child's nose __________
9. baby's teeth __________
10. child's eye __________
11. baby's hair __________
12. child's eye __________
13. child's eye __________
14. child's teeth __________
15. baby's eye __________
16. child's hair __________

VII-D Telling Trainer to perform an activity: Trainer notes child's response to the question, "What do you want me to do?", performing each activity requested by the child after the question. Total __________

1. What do you want me to do? __________
2. What do you want me to do? __________
3. What do you want me to do? __________
4. What do you want me to do? __________
5. What do you want me to do? __________
6. What do you want me to do? __________

VII-E Naming Missing Objects: As the child watches, trainer places 3 objects in a box and removes one out of his view and then notes whether child names object missing from the group of 3 that he has just seen. Trainer asks, "What is one?" Total __________

1. spoon baby key __________
2. comb ball car __________
3. comb car baby __________
4. baby comb ball __________
5. key ball hat __________
6. car hat comb __________
7. hat spoon shoe __________
8. key baby spoon __________

Comments:

APPENDIX E

Signs for the Words in the MLAP*

Manual signing may be incorporated into the MLAP:

a. with deaf students

b. temporarily with students who have some receptive skills, no vocal expressive skills (may have some spontaneous manual expression), and are receiving training at either 3a or 3b.

c. with all students who have no receptive, no vocal expressive, no vocal imitative, no motor imitative skills nor even attending skills as measured by the initial MLAP tests.

An inability to vocally express oneself can be very frustrating for persons of normal intelligence as well as for retarded persons. This is especially true if that retarded person has a high level of receptive or understanding skills but a very low or practically nonexistent level of expressive skills. Often such a person may have a hearing loss in which case hearing tests should be administered as a first step in determining whether there is a reduction in hearing acuity and whether hearing aids would increase the hearing level. (It should be routine to give hearing tests to all non-verbal or low verbal students prior to enrollment in any program for language development. For further reference to techniques of hearing assessment of non-verbal retarded students see:

1. Berger, S. L., "A clinical program for developing multimodal language responses with atypical deaf children" in McLean, J. E., Yoder, D. E., and Schiefelbusch, R. L. (eds) Language Intervention with the Retarded, developing strategies, Baltimore: University Park Press, 1972, p. 212-235.

2. Bricker, W. A. "A systematic approach to language training" in Schiefelbusch, R. L. (ed.) Language of the Mentally Retarded, Baltimore: University Park Press, 1972, p. 75-92.

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* For additional reference, see:
Kent, L. Language Acquisition Program for the Severely Retarded. Champaign, Ill.: Research Press, 1974.

3. Bricker, D., Bricker, W. A. and Larsen, L. A. "Operant Audiometry Manual for Difficult-to-Test Children", Nashville, Tennessee: Institute on Mental Retardation and Intellectual Development, Peabody College, IMRID papers and reports, Vol. V, No. 19, 1968.

4. Fulton, R. T. "A program of developmental research in audiologic procedures", p. 169-188, in Schiefelbusch, R. L., (ed.) Language of the Mentally Retarded, Baltimore: University Park Press, 1972.

5. Lloyd, L. L. and Fulton, R. T. "Audiology's contribution to communications programming with the retarded", p. 111-129, in McLean, J. E., Yoder, D. E., and Schiefelbusch, R. L., (eds.) Language Intervention with the Retarded, developing strategies, Baltimore: University Park Press, 1972.

6. Siegenthaler, B. M. and Haspiel, G. T. I. P. D. I. P. (Threshold by Identification of Pictures--Discrimination by Identification of Pictures), The Pennsylvania State University, University Park, Pa., 16802, 1970.)

Other students may, for various reasons, be "stuck" at the gross vocal level or at an early sound imitation level. These persons may appear unable to produce or perfect any understandable words even though they may have some sounds. For these students a manual mode of expression may be taught along with continued training towards vocal expression. It is not believed by this author that such a procedure will retard development of meaningful vocalizations since any manual expressive training would be coupled with the spoken words by the trainer and with continued training in vocal imitation. Rather this manual expressive training would provide the retarded non-verbal student with

1. a temporary expressive communication system preventing further social retardation and encouraging further use of communication skills,

2. a cognitive expansion of his receptive skills laying the mental foundation for later vocal expression.

The signs for the words in the MLAP are listed by phase following the training suggestions. The signs are from the Ameslan System (American Sign Language) rather than from the Signed English System which, especially for this level of language instruction, is too complex and abstract. Signs and training suggestions have been taken from the following sources which should be consulted for additional signs:

1. O'Rourke, Terrence J., A Basic Course in Manual Communication, Silver Spring, Maryland: National Association for the Deaf, 1970.
2. Harper, Beryl and Owens, Michael, Sign Language: a teaching manual for cottage parents of non-verbal retardates, Pineville, La., Department of Speech and Hearing, Pinecrest State School.
3. Fant, Louis J. Jr., Ameslan, Silver Spring, Md.: National Association for the Deaf, 1973.
4. Riekehof, Lottie, Talk to the Deaf, Springfield, Mo.: Gospel Publishing House, 1963.

Training in the MLAP with signs and words

A. General suggestions for signing:

1. Learn signs thoroughly before beginning training so as to be consistent and smooth in the rhythm of presenting the sign at a slow deliberate pace.
2. Signs must be positioned correctly so as not to confuse visually one sign with another.
3. Signs should be placed as close to the body as possible and positioned between the shoulders and below the neck, but above the waist. The exceptions are those signs which must be made near the face.
4. Directly face the person that you are manually communicating with. The trainer must take a student's visual handicaps into consideration and not sign too close nor too far away.
5. Teach standardized signs so as to encourage generalization to other situations and persons, to make sign learning by others easier and to eliminate the possibility that signs mean more than one word.

B. Initial procedures to teach new signs to students:

1. Overemphasize the signs making them "large" enough to be seen. For example, the standard sign for "come" (index fingers rotated in a circle as brough towards body) can be enlarged so a wide circle is make with the hands and it is begun way out from the chest and then brought towards the chest.

2. Repetition of the signs, especially for those that cannot be made "large" (i.e., nose), is another way to emphasize the sign for the student. An example is nose: the nose is touched several times rather than just once.

3. Giving the sign slowly will increase the chances that a student will see and eventually understand the sign.

4. Don't look at your hands when you are signing for a student; instead look at his face and keep your expressions consistent with what you say and sign.

5. If a student has his own signs for words you are teaching, ignore his sign and reinforce only the standardized sign you are teaching.

C. Manual-Oral Stimulation:

Regardless of whether the student has hearing or not, the trainer should always speak clearly and loudly while signing. This is important so students with no hearing or with limited hearing eventually may learn to lip read while those with hearing who already have understanding of some spoken words will continue to use and extend this knowledge. Also the trainer should be careful to pair each sign with the vocal expression of that sign so the student can begin to associate the spoken word with the manual sign for that word - the rate of signing and speaking should be the same. Another rule to keep in mind when signing is to keep the mouth and hands within the student's eye range so both may be viewed.

D. Specific suggestions for using signs with each phase in the MLAP:

1. Phase 1: Attending

As the trainer gives the command to "Sit," "Look at this," etc., the signs for the words commanded also should be given following the rules listed above. The student will learn only the meaning of the signs and words for the commands taught in this phase rather than to expressively use any of them.

Note: The sign "attend" is used here rather than the sign "Look at," as its motion is clearer. However, the word "Watch" is spoken. Also "Now" may be added to the end of the command for the overly inattentive student who must have the commands repeated.

SIGNS FOR PHASE 1

1. SIT, CHAIR - The right curved index and middle fingers are placed crosswise on the left curved index and middle fingers, both palms facing down.

   IDEA: Right hand represents someone sitting on the chair.

2. NOW - Place both bent hands before you at waist level, palms up. Drop hands slightly.

   IDEA: Indicates the time that is immediately before you.

3. ATTEND/ATTENTION (Say "Watch" when signing)
   - Place open hands at either side of the eyes, like blinders on a horse; then move both hands forward.

   IDEA: Blinders help one to concentrate and prevent one from looking to the right or the left.

4. LOOK/WATCH - Place the "V" before the face, fingertips near the eyes, then turn the "V" so that the fingertips point forward.*

   IDEA: "V" tips pointing to the place where the eyes are looking.

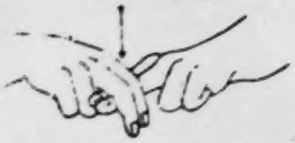
5. ME - Point right index finger at yourself.

6. THIS - With right forefinger pointing at left open palm, move right forefinger in circular motion before touching palm of left hand.

7. YOU - Point index finger out. (For plural, point index finger out and move from left to right.)

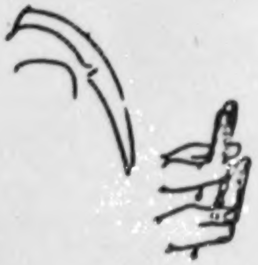
*NOTE: Whenever specific letters of the manual alphabet are included as part of a sign description, refer to the manual alphabet (No. 69) at the end of Appendix E.

1.



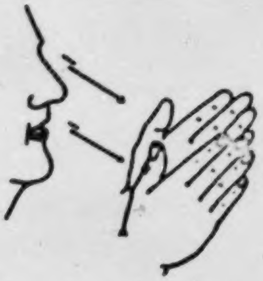
SIT, SEAT, CHAIR

2.



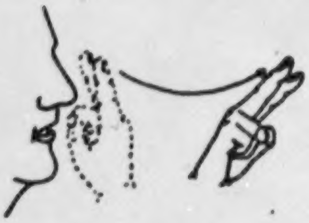
NOW

3.



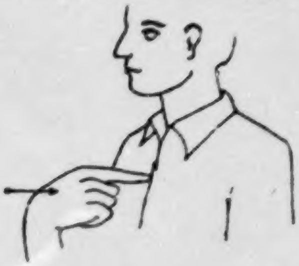
ATTENTION

4.



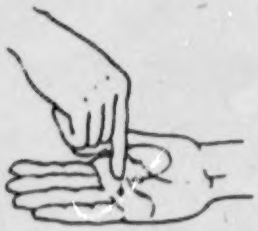
LOOK

5.



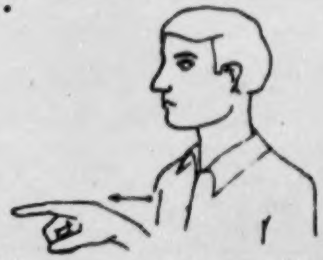
ME

6.



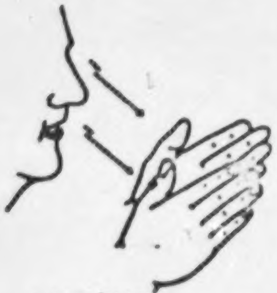
THIS

7.



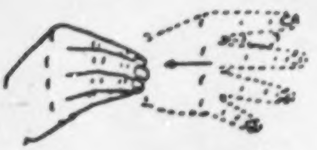
YOU (SINGULAR)

8.



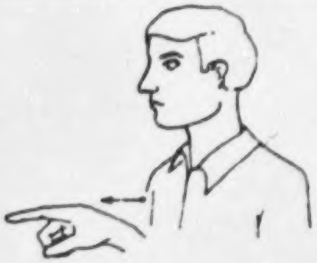
LOOK/WATCH

9.



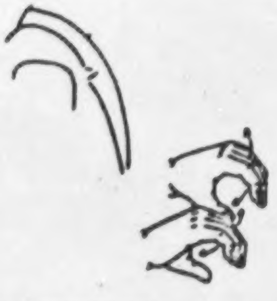
AND

10.



YOU

11.



DO/ACTIVITY

3. Phase 3: Vocal Imitation

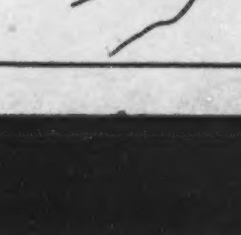
The trainer signs as he says the command to "Watch and you do, say '_____'" and "Say '_____'." The single words and phrases are signed for parts 3c and 3d. As the word or words to be imitated are emphasized so are the signs. However, the "ah" sound and the other vowel sounds for parts 3a and 3b are not signed, only spoken. Again, the student will not learn to use signs in this phase, but only to receptively understand the signs for the command, "Say". However, extensive work in this phase is important so as to eventually develop speech with which to replace the signs.

SIGNS FOR PHASE III

12. SPEAK/SAY/TELL - The index finger, pointing to the left, is held before the mouth and rolls forward in a circular movement.

IDEA: Words proceeding from the mouth.
NOTE: Refer to Phase II for the signs "watch", "and", "you", and "do".

12.



SPEAK
SAY
TELL

4. Phases IV and V: Basic Receptive and Receptive Expansion Phases

As the trainer gives the various commands in each of the parts in these two phases ("Show me the ball," "Show me the baby's nose," "Go get the comb and the key," etc.) the signs are also given at the same rate as the spoken command. As the key words are emphasized orally, so should the signs for those words be emphasized (i.e., the 8 objects, the 4 room parts, the 4 body parts and the 6 activities). However, the other signs in each command sentence should also be given. The articles, "a", "an" and "the" are not signed but the conjunction (and), the prepositions (in, on), the verbs (show, go, get, jump, etc.) and all nouns (ball, floor, etc.) and pronouns (me, your) are signed. Again, the student will not learn to expressively use the signs in this phase but he will learn the menaing of the words and signs he will later use in the expressive phases.

SIGNS FOR IV AND V

13. SHOW/DEMONSTRATE - Place the tip of the right index into the left open hand which is facing out and move both hands forward.

14. ME - Point right index finger at yourself.

15. BABY - Place right hand in crook of left arm as if rocking a baby.

16. BALL - Cup both hands together, one palm facing down, other palm facing up; quickly invert positions.

17. CAR/DRIVE - Hold an imaginary steering wheel as if driving.

18. COMB - Run spread fingers through the hair.

19. HAT - Tap top of head several times with right open palm.

20. KEY - Place the knuckle of the crooked right index finger into left palm and turn.

21. SHOES - Strike the sides of the "S" hands together several times.

22. SPOON - Using "h" hand shape of right hand, give it a scooping action in open palm of left hand.

23. BOX - Hold both hands facing each other in front of you, then move one on top of the other (step 2)

24. SIT/CHAIR - The right curved index and middle fingers are placed crosswise on the left curved index and middle fingers, both palms facing down.

IDEA: Right hand represents someone sitting on the chair.

25. FLOOR - Hold both hands apart and flat over floor, bring together.

26. TABLE - With palms down and together, move hands apart to outline table top and drop hands down.

27. YOUR/YOURS - Face palm out, directing it outwards.

28. EYE - Point to the eye

29. HAIR - Take hold of a piece of hair with the foreginer and thumb.

30. NOSE - Point to the nose.

31. TEETH - Open lips and point to your teeth.

32. BOUNCE - Hold open hand facing flat and downwards, move rapidly up and down as if bouncing a ball.

33. EAT - The "AND" hand is thrown lightly toward the open mouth several times.

34. JUMP - Place the right "V" in a standing position on the left palm; lift the "V", bending the knuckles and return to standing position. Repeat several times.

IDEA: Bending the knees in jumping.

35. MARCH - Place both bent hands before you, fingers separated and palms facing down, right behind the left; swing the fingers back and forth as both hands move forward.

IDEA: Indicating rows of soldiers marching.

36. ROLL - Hold the hands flat and facing yourself; move them around each other in circles and extend away from self.

37. SIT/CHAIR - The right curved index and middle fingers are placed crosswise on the left curved index and middle fingers, both palms facing down.

IDEA: Right hand represents someone sitting on the chair.

38. GO - Index fingers as they move forward, rotate around each other (palms toward self).

IDEA: Fingers going away from the body.

39. GET - Both open hands, right above the left and facing each other are closed into fists. the right on top of the left.

40. GIVE - Both "AND" hands facing down are turned in-up-forward, ending with palms open and facing up. (Sign can be reversed and brought towards self if this meaning is desired.)

IDEA: Giving something to someone.

41. ME - Point index finger at yourself.

42. AND - Place the right hand before you, fingers spread apart and pointing left (palm facing self), draw the hand to the right, closing the tips.

43. PUT/MOVE - Place the open "AND" hands before you, palms down, and lift them slightly, changing to the "AND" position as you move them to the right and down (fingertips pointing down all the while.)

IDEA: An object is lifted and placed.

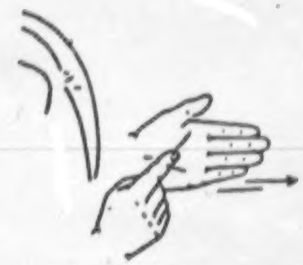
44. ON - Palm of the right open hand is placed on the back of the left open hand, both palms down.

IDEA: One hand on top of the other.

45. IN - Place the closed fingertips of the right hand into the left cupped hand.

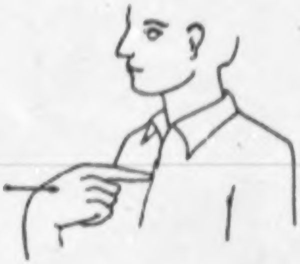
46. YOUR - Face palm out, directing it forward.

13.



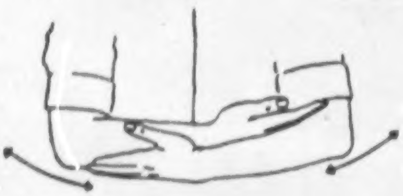
SHOW/DEMONSTRATE

14.



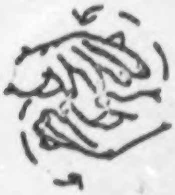
ME

15.



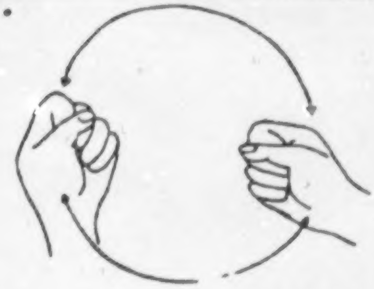
BABY

16.



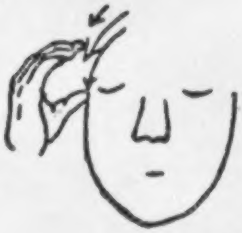
BALL

17.



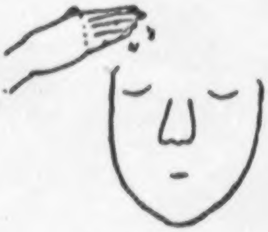
CAR/DRIVE

18.



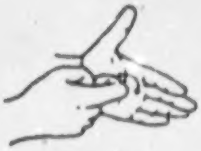
COMB

19.



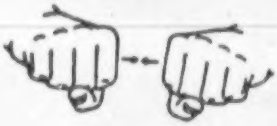
HAT

20.



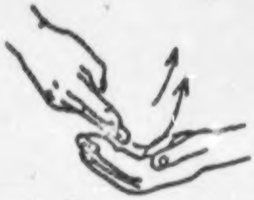
KEY

21.



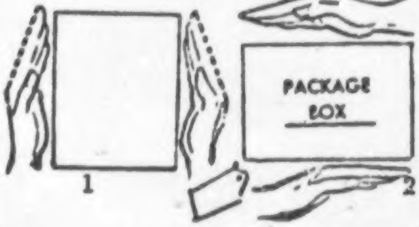
SHOES

22.



SPOON

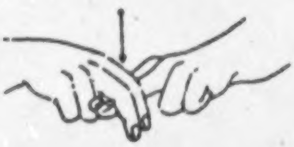
23.



PACKAGE
BOX
1
2

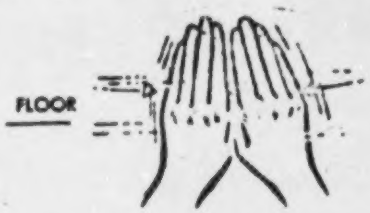
BOX

24.



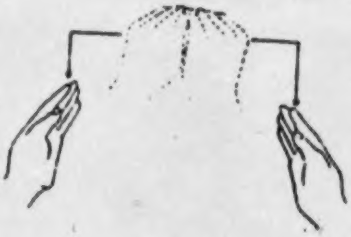
SIT/CHAIR

25.



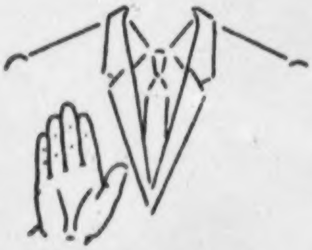
FLOOR

26.



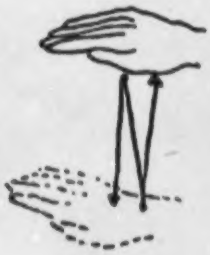
TABLE

27.



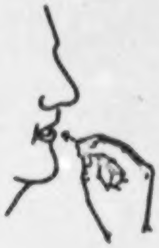
YOUR/YOURS

32.



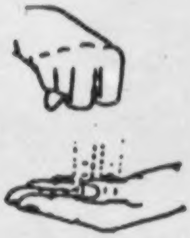
BOUNCE

33.



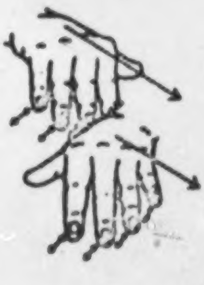
EAT

34.



JUMP

35.



MARCH

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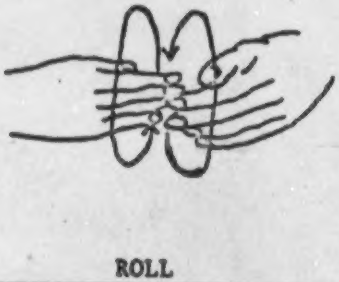

ROLL

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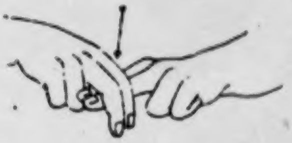
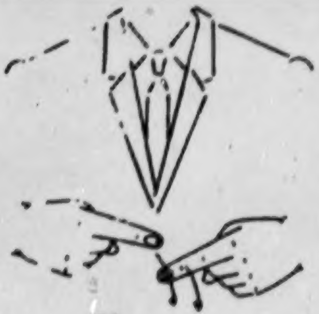


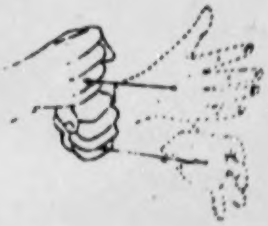
SIT/CHAIR

38.



GO

39.



GET

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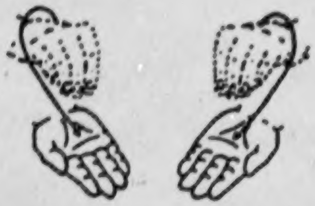

GIVE

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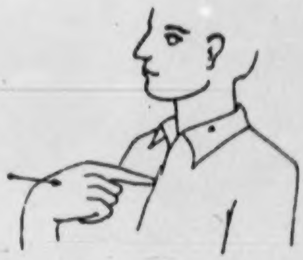

ME

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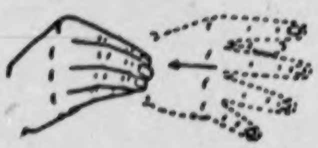

AND

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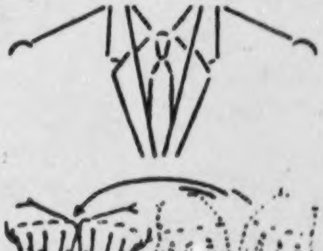
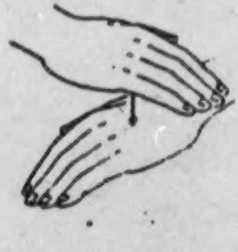


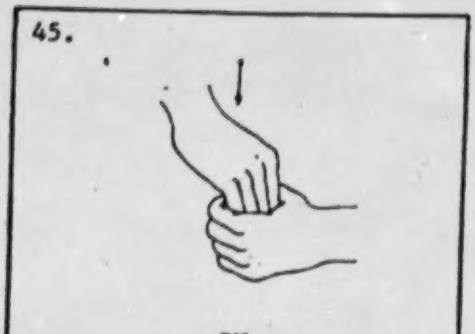
PUT/MOVE

44.



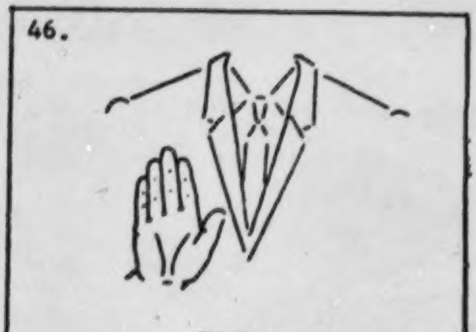
ON

45.



IN

46.



YOUR

5. Phase VI and VII: Basic Expressive and Expressive Expansion Phases:

It is during these two phases that the student learns to sign expressively. As the trainer asks the student the various questions in these two phases, he/she also signs. However, because the AMESLAN system does not sign word for word (but omits some words) each command to be spoken and signed is listed below:

Part	Words Spoken by Trainer	Words Signed by Trainer
6a.	"What is this?"	"What this?"
6b.	"What is this?" (or that)	"What this?" (or that)
6c.	"What is this?"	"What this?"
6d.	"What did I do?"	"What I do?"
6e.	"What is in the box?"	"What in box?"
7a.	"What do you want?"	"What you want?"
7b.	"Where is the _____?"	"Where _____?"
7c.	"Whose _____ is this?"	"Whose _____?"
7d.	"Tell me what to do."	"Tell me what do."
7e.	"What is gone?"	"What disappear (ed)?"

Most of the spoken questions remain the same except for "Tell me what to do." in 7d. which is used in place of "What do you want me to do?" The changes reflect not only the grammatical system of AMESLAN but also its vocabulary. Therefore, all the "to be" verbs and articles are not signed. The signs for "is" and "are" are given if the trainer wants to use them, or for the point at which the student may be capable of expanding traditional communication.

The student is taught how to answer the various questions with one-sign responses, using the signs for the 8 objects, 4 room parts, 4 body parts and 6 activities, plus the sign for his own name or the sign for "mine" in part 7c. After the student learns the one-sign responses he may be taught to give two and three sign responses (such as the signs for "my nose," "ball on chair," etc.). Whenever a student does not respond with a sign, gives an incorrect sign, or gives only a partially correct sign (when he can correctly sign), then the motor imitative skills for the student are used. That is, the trainer follows the signed and spoken questions with a motor imitative prompt (also signed), "Watch (attend) and you do." and gives the sign and words for the student to imitate. Additional physical help is given only when the student has difficulty copying the manual positions. A student can spend additional training sessions in the motor imitation phase just learning to imitate manual signs without connecting them meaningfully to words. (During these training sessions, the trainer still will say the words and sign, "Watch and you do," give the sign for the object and at the same time say the name of the object, expecting the student to copy only the sign.)

SIGNS FOR PHASES VI AND VII

47. WHAT - Draw the right index downward across the left open palm.

48. IS - The sign for the letter "i" is made in front of the mouth and drawn away from the mouth.

49. ARE - The sign for the letter "r" is made in front of the mouth and drawn away from the mouth.

50. THIS - Point with the right index finger to the palm of the left hand making a small circular motion in the palm.

51. THAT - Make the sign for the letter "y" with the right hand and place it on the left palm.

52. I - Make the sign for the letter "i" with the right hand in front of the chest and draw the sign away from the chest.

53. DO/ACTIVITY- Place both hands forming the sign for the letter "c" before you, palms down; move both hands to the right and left several times.

54. IN - Place the closed fingertips of the right hand into the left hand which forms the sign for the letter "c".

55. BOX - Hold both hands facing each other in front of you, then move one on top of the other (step 2).

56. YOU - Point index finger out.

57. WANT - Place both hands palms upward and fingers curled in front of chest and draw towards chest.

58. WHERE - Both open hands, palms up, are circled outwardly (right hand clockwise and left hand counterclockwise).

59. WHOSE/WHO/WHOM - Describe a circle around the pursed lips toward the left with the index finger.

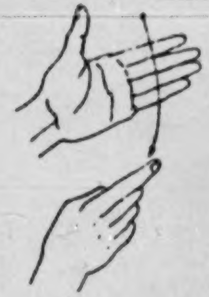
60. MY/MINE - Place palm on chest.

61. TELL/SPEAK/SAY - The index finger, pointing to the left, is held before the mouth and rolls forward in a circular movement.

62. ME - Point index finger towards self.

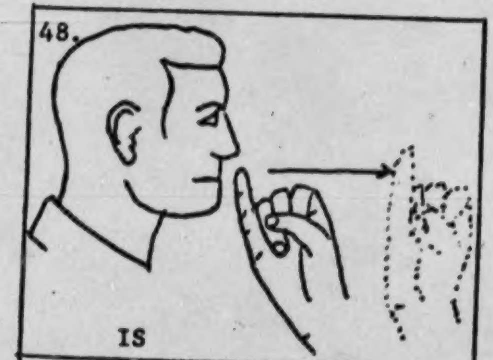
63. DISAPPEAR/GONE - Hold up both open "AND" hands, palms facing self and tips pointing up; as the hands are drawn apart to the sides pass the thumb along the fingertips, ending with an "A" position in each hand.

47.



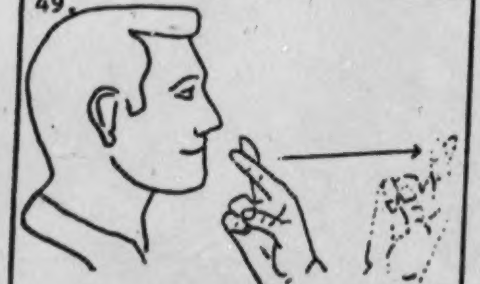
WHAT

48.



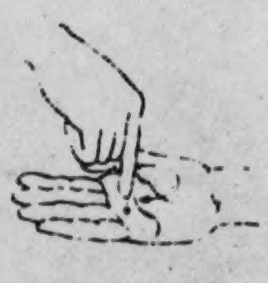
IS

49.



ARE

50.



THIS

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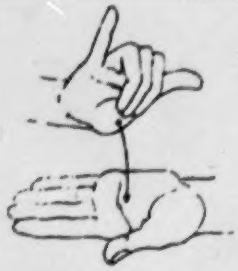

THAT

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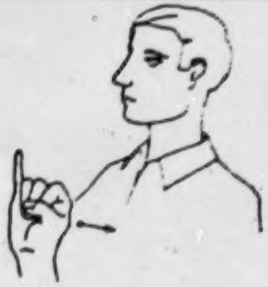
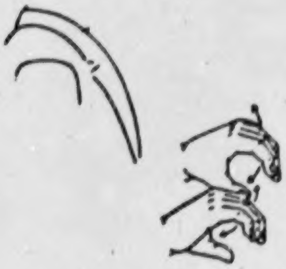


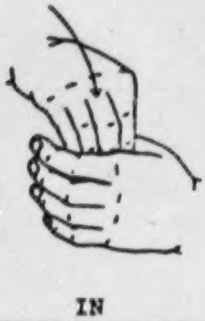
I

53.



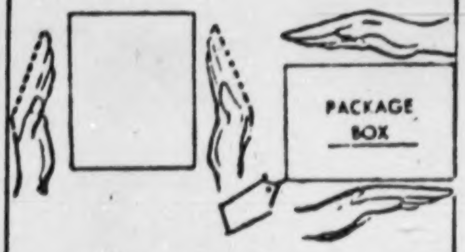
DO/ACTIVITY

54.



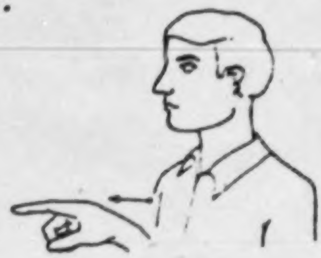
IN

55.


PACKAGE
BOX

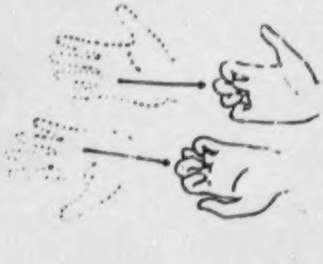
BOX

56.



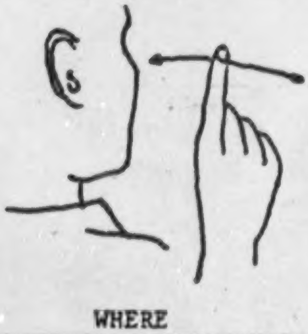
YOU

57.



WANT

58.



WHERE

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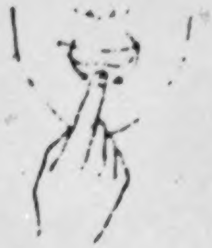
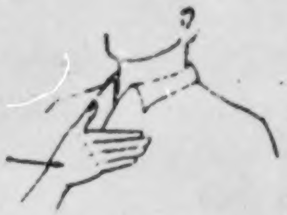


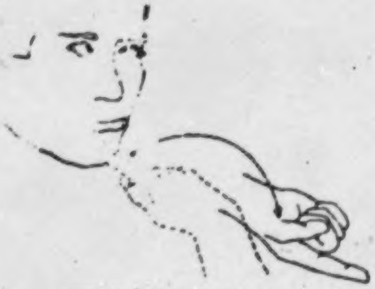
WHOSE/WHO/WHOM

60.



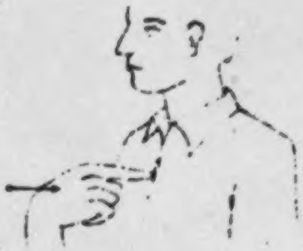
MY/MINE

61.



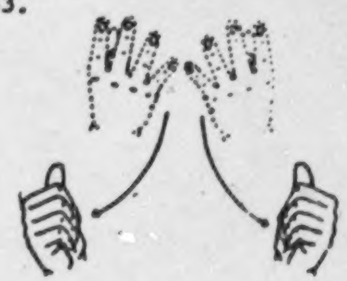
TELL/SPEAK/SAY

62.



ME

63.



DISAPPEAR/GONE

In addition to the special rules and suggestions for using signs with the MLAP the trainer should also consult the suggestions listed in the part-by-part description.

Additional signs are listed below in alphabetical order which may be of use during language training.

64. GOOD - Touch the lips with the fingers of the right hand and then move the right hand forward placing it palm up into the palm of the left hand.

65. MONEY/TOKENS - Strike the left palm with the back of the right "AND" hand several times.

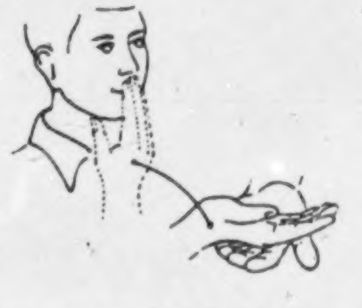
66. NO - Hold up both flat palms facing outward and with wrists of hands crossed then uncross wrists keeping hands in same position.

67. YES - Hold the signed letter"s" before you, palm facing out, and bend the wrist forward.

68. STUDENT'S NAME - Generally the first letter of the student's name is signed in a position or with a motion that relates to a physical characteristic of that student (for example, a student named Jill who has long hair could be signed by signing the letter "j" from the head down behind the shoulder).

69. Manual alphabet used by the deaf of North America.

64.



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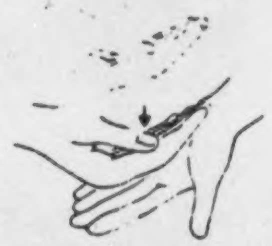

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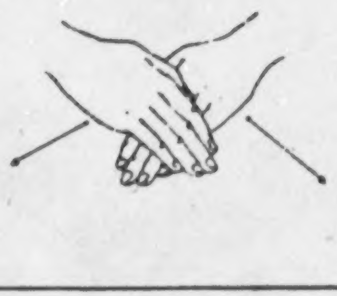

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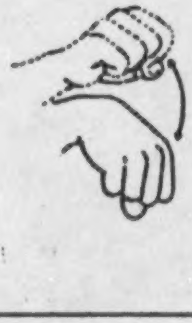

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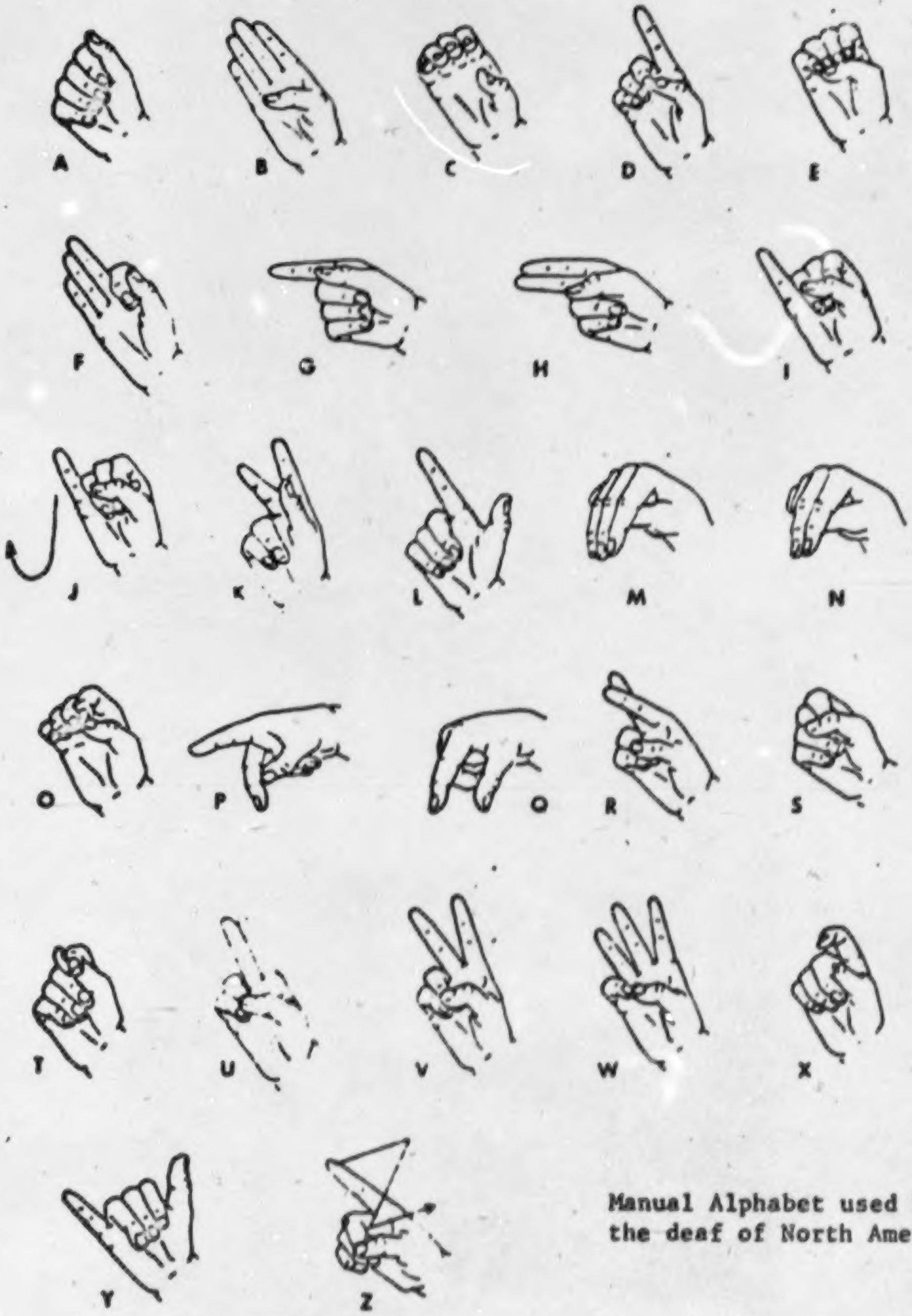
A
B
C
D
E
F
G
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I
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K
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N
O
P
Q
R
S
T
U
V
W
X
Y
Z

Manual Alphabet used by
the deaf of North America.

Alphabetical Listing of All Signs Cross-Referenced by Their Title Number(s):

and - 9, 42
are - 49
attend, watch - 3, 8

baby - 15
ball - 16
bounce - 32
box - 23, 55

car, drive - 17
chair, sit, seat - 24
comb - 18

do - 11, 53
disappear, gone - 63

eat, food - 33
eye - 28

floor - 25

get - 39
give - 40
go - 38
good - 64

hair - 29
hat - 19

I - 52
in - 45, 54
is - 48

jump - 34

key - 20

look at, watch - 4

march - 35
me - 5, 14, 41, 62
mine, my - 60
money, tokens - 65

name (of the student) - 68
no - 66
nose - 30
now - 2

on - 44

put, place, move - 43

roll (verb) - 36

say - 12
shoe - 21
show, demonstrate - 13
sit, seat, chair - 1, 37
spoon - 22

table - 26
teeth - 31
tell - 61
that - 51
this - 6, 50

want - 57
watch, attend - 3, 8
what - 47
where - 58
whose, whom, who - 59

yes - 67
you - 7, 10, 56
your, yours - 27, 46

Appendix F

Related References:

Language Acquisition for the Mentally Retarded.

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Sailor, W., D. Guess, and D. M. Baer, "Functional Language for Verbally Deficient Children: An Experimental Program." *Mental Retardation*., 1973, *11*, 27-35.

Striefel, S. *Managing Behavior #7, Behavior Modification: teaching a child to imitate.* Lawrence, Kansas: H & H Enterprises, Inc. (P.O. Box 3342), 1974.

Struck, Richard D., *Behavioral Characteristics Progression, A Guide for the Management of Special Education Programs*. Santa Cruz County Office of Education, 701 Ocean Street, Room 200, Santa Cruz, California 95060.

Tawney, J. W., *Systematic Language Instruction for Retarded Children: the Illinois Program.* Danville, Illinois: The Interstate Printers & Publishers, Inc., 1972.

Appendix G

Part 4d: Performing Activities

Footnote 1. Fefer to footnote 2: Receptive Expansion Phase. This part (Part 4d) may be out of developmental sequence since performance of activities through object manipulation appears to be more easily learned than does performance of single verb-form commands. Therefore, if a student does not make progress on this part the trainer may consider discontinuing training part 4d. altogether. During the Receptive Expansion Phase activities involving object manipulation would be trained in place of Pard 4d. as developmentally more appropriate tasks. For example: "Push the car;" "Put on the hat;" "Shine the shoe;" "Rock the baby;" "Eat with the spoon;" "Throw the ball;" and "Ring the bell."

Part 5: Recptive Expansion Phase

Footnote 2. Alternate training procedure suggestions are offered for each part in the Receptive Expansion Phase as a result of communication with L.R. Kent regarding recent application of the newly revised Language Acquisition Program (Kent, 1973) at Coldwater State Home and Training School in Coldwater, Michigan. See asterisks following parts 4d, 5a, 5b, 5c, and 5d. These suggestions may be especially valuable for the student whose performance in this phase does not seem to be improving.

Part 5a: Giving the trainer two objects

Footnote 3. It appears that related pairs of objects aremore easily learned during this phase of the program. For example - shoe-sock, hat, coat; comb, brush; spoon, bowl are all examples of commonly related pairs of objects. The trainer may want to introduce, during phase 4a. training, the additional object words which are related to those already trained receptively in 4a. Training in 5a. would consist then of using only related object pairs.

Part 5b: Putting an object on a room part

Footnote 4. It appears that performance of activities more naturally related to room parts may be also more easily learned than teaching random combinations of placing objects on room parts. For example: "Open the door;" "Turn off the light;" "Wash the table;" "Set in the chair;" would be more easily learned than "Put the hat on the chair." Therefore, the trainer may want to introduce single additional room parts (e.g. light, etc.) using 4b. training procedure prior to training these nouns in combination with a verb at the 5b. level.

Part 5c: Pointing to body parts: Possession -- student's or baby's

Footnote 5. It appears that performance of activities naturally relate to body parts may be more easily learned during this phase than is possession with regard to body parts. For example: "Comb your hair." "Brush your teeth;" "Wash your hands;" is more easily learned that is "Show me the baby's nose," or "Show me Bobby's eye." Therefore, the trainer may want to introduce single additional body parts (e.g. hands, etc.) using 4c. procedure prior to training these nouns in combination with a verb at the 5c level.

Part 5d: Finding two objects (not visible)

Footnote 6. The same reasoning for suggested changes in part 5a. (see footnote 3) would apply here. After a student has passed part 5a., giving the trainer related pairs, training could begin in part 5d. which would also use related pairs.